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# Railway Traffic Departments

## *Organization and Systems*

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## The Solicitation of Freight

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Prepared under the direction of the *Advisory Traffic Council of  
The American Commerce Association*

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## PREFACE

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**T**O the lay mind, the modern railway transportation system seems either a huge and merciless capitalistic operation, designed to create enormous profits for its promoters from both the shipping and the investing public, or else, when the departmental system is viewed from the standpoint of the uninitiated, it seems a hopeless labyrinth of titles and offices; a structure so complicated as to seem to result in endless confusion.

In a recent investigation one of our great economists charged enormous wastes due to cumbersome and impractical systems of railway organization and management. An impartial search of the facts, however, fails to substantiate this statement in its entirety and an expert analysis of corporate, departmental and divisional organizations of important railways, proves the necessity for complicated systems whereby an efficient homogeneity of railway maintenance and operation may be attained. This homogeneity is, in many instances, appreciable only by technical railway executives.

Railway administration as now effected in conjunction with the various systems of national and state regulation of common carriers, is fast becoming subject to *legal-scientific* development, and the many and varied problems confronting railway officials require a system of organized control capable of an efficient fusing of the human,

mechanical and commercial elements involved in the conduct of railway transportation.

This volume aims to make clear the functions of the various departments of the modern railway system, with particular reference to the Traffic Department, and with a view to outlining the principles necessary to be known by anyone having dealings with or desiring to enter that department.

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## INTRODUCTION.

### EVOLUTION OF TRANSPORTATION AND TRANSPORTA- TION AGENCIES.

- § 1. Evolution of the Transportation Function.
- § 2. Evolution of Transportation Agencies.
- § 3. Evolution of the Common Carrier.
- § 4. Evolution of Motive Power for Transportation Vehicles.



## INTRODUCTION.

### EVOLUTION OF TRANSPORTATION AND TRANSPORTATION AGENCIES.

#### § 1. Evolution of the Transportation Function.

Transportation of the person and the chattel has ever been a part of man. Even before the dawn of civilization, when primordial man was emerging from the communistic state, the carrier of burdens found his place in the dealings in and between tribal domains.

The most primitive carriers of the world were women. They and their children constituted the first currency and the first movable property, this latter quality rendering them easily exchangeable in the process of barter and change. In this sense they were their own carriers for if their lord and master so willed they transported their persons and belongings to a new master. They were the first bearers of burdens and theirs was the function that has since vitalized all commerce between men.

From these primitive burden bearers to the mechanical transportation agencies of the present age is a span of centuries during which the progress of man has proceeded from the darkness of savagery to the brilliant achievements of modern civilization. The development of Man during these ages has evolved, in a fundamental sense, from two sources—the development of agriculture and the construction of roads.

Through his progress in agriculture semi-prehistoric

man established the earliest stable forms of trading and commerce, and through his creation of roads he gave extent to his trading. In its earliest forms, commerce meant the satisfying of human necessity. It resulted from the recognition of the right to acquire and possess property as well as dispose of it. It first embraced only the communistic sphere of action of man the moment he ceased to rely upon nature to supply his physical needs, for semi-prehistoric man drew upon nature for all available substance for the satisfaction of his needs long before he resorted to his own ingenuity to produce the necessities or luxuries of life.

The desire of man to own property, to satisfy his physical desires, to exchange that which he had or to seek that which he desired to possess, caused him to migrate and procure that which was not part of his immediate environs. Thus, in his early migrations man blazed the trails that centuries afterwards became highways of commerce and civilization.

As the pioneer carriers of the world women did not migrate beyond the confines of tribal protection. Men themselves ultimately braved the dangers of the jungles and the forests and became carriers, and in their trading ventures reached out beyond the tribal limits.

In the order of the development of man as a carrier, he invented the first devices of carriage that he might render his burden easier to bear, and when he threw the burden from his own shoulders to those of domesticated animals, he solved the first problem of early transportation—the procuring of a transportation agency other than his own. The animal most easily domesticated to the needs of man was the cow and the shifting of the burden from the shoulders of man to the beast was the first step in the long and tedious evolution of commercial transportation. Follow-

ing the cow, the ox was domesticated; later the dog. The sheep and the goat were still later utilized for purposes of carriage, and even today a not uncommon sight on the highways of modern Europe is the dog-drawn carts of the peasantry.

Primordial man did not meet his problems of life aggressively and his progress in developing means of transporting his burdens was apparently the most slowly developed of his achievements. As the cow was capable of carrying upon her back but a limited quantity, the slowly awakening ingenuity of man ultimately turned to the finding of a means whereby he might increase the carrying capacity of the animal and to the further utilization of other animals which might be easily conquered and domesticated.

The crudest of vehicles of carriage were fashioned and before the mechanical properties of the wheel were discovered, the beasts of burden moved their loads on long roughly hewn planks dragged over the ground.

History is silent upon the first introduction of the wagon as an agency of transportation, but we do know that the Aryans (the aborigines of the world) used the linch pin, yoke, pole, wheel, axle, and nave, but we have not the time herewith, nor would the purposes of this volume be served beneficially, to indulge in the tracing out of the evolution of vehicles and devices of carriage, for a variety of forms of such vehicles and devices were evolved by man as his ingenuity increased. We are concerned here with the fact that the evolution of transportation agencies has been more than a mere incident of commercial growth.

The function of transportation fulfills the greatest of all principles of natural law, that all progress is derived from motion and the transportation function; the carrying of both the inanimate and the animate from one place to

another has constituted the motion that has afforded the civilized world the commercial development it now enjoys.

## § 2. Evolution of Transportation Agencies.

The domestication of the cow, the ox, the dog, the sheep, and the goat, and their utilization in the intercourse of primitive commerce, remained for ages the only means of carriage. Centuries intervened before the horse was domesticated and employed in the affairs of men and even then his services were first devoted to the pleasure of the wealthy and as an implement of warfare. In time the horse became a carrier of packs and his use has since become so extensive in the different forms of carriage throughout the world that his strength is now the unit of mechanical power. In the sense of furnishing the motive power of carriage the horse was the progenitor of the modern steam locomotive.

As soon as man acquired a knowledge of the spoke and falloe he devised the cart and its counterpart the chariot, the forerunners of the wagon,—the implement that has remained the elemental type of vehicle adapted to all subsequent forms of land carriage among our ancestors; it was in principle the progenitor of the wheeled carriage of the modern steam and electric railways.

Carriage by water was equally as slow in its development as was carriage by land. The canoe, originally consisting of a log hollowed out by fire or some stone implement was suggested to the savage by the driftwood floating in the stream and a stick or limb of a tree first served as an oar, the sail and rudder not being devised until centuries later.

Thus, the utilization by man of natural forces and agencies, both on the land and on the water, gave to transportation agencies their most elementary distinction and the

one with which we fundamentally associate them at the present time,—that of land carriers and water carriers.

In the development of land carriage a variety of animals have been domesticated and employed both as beasts of burden and for providing motive power for the vehicles of carriage. On the water the canoe has been evolved into barges, floats, and vessels of an infinite variety of types and sizes, propelled by sail and by mechanical power.

### § 3. Evolution of the Common Carrier.

Justinian, the Roman emperor, was the first to draw a legal distinction between those who acted as carriers of chattels in a public manner and those who simply acted as carriers in a personal and private capacity. He who carried for the public at large was performing a public office and was bound to the public. His employment was a public one and was to be performed indiscriminately. The transportation agencies in vogue at that time were still in a primitive state, but the extent to which the public was served by them rendered necessary the determination of a relationship between the carrier and his customer recognized by the law. Under the Justinian code one whose regular business or calling was to carry chattels for all persons who might choose to employ and remunerate him was a common carrier and bound to the public.

The modern definition of the common carrier has not in the abstract departed from the decree of the Roman law. In a modern sense a common carrier is one who holds himself out to the public to carry persons or property for hire, limited insurer of the goods intrusted to him and responsible for all losses of the same save such as are occasioned by the act of God or the public enemy.

Common carriers are of two kinds—by land, such as owners of stages, stage wagons, railroad cars, self-pro-

pelled vehicles (including teamsters, cartmen, draymen, and porters), and by water, such as owners of ships, steamboats, power driven vessels, and barges (including ferry-men, lightermen, and canalboat men).

In the United States the airship has not yet been employed as a medium of commercial transportation, but the rapid development of air craft warrants the prophecy that the definition of a common carrier in the not far distant future will include the owner of the airship devoted to commercial carriage.

#### § 4. Evolution of Motive Power for Transportation Vehicles.

As commercial intercourse has developed man has ever sought the means of increasing the speed of commercial motion. He has perfected many ingenious devices to utilize the forces of nature to assist in the movement of his property, but it was not until 1759 that steam was suggested for the propulsion of wagons and vehicles upon the public highways, although knowledge of the power of steam can be traced back to Alexander the Great, about B. C. 130.

Following Doctor Robinson's suggestion of steam as a motive power for transportation vehicles, various types of steam engines were constructed, but all failed from three common causes—lack of mechanical knowledge, excessive cost of operation, and the want of proper roads. These early types of steam engines were not developed as locomotives, but rather as stationary machines, and it was not until 1803 that Trevithick invented a locomotive. This locomotive was capable of moving upon the railroads or tramways then in use over which horse-drawn vehicles were moved. Trevithick's locomotive was practical in all ways but one and that was its cost of operation.

George Stephenson, commonly credited with being the inventor of the steam locomotive, simply carried into practical effect the idea which Trevithick had discovered and which Blenkinsop had improved upon in 1811. To the credit of Stephenson belongs the practical adaptation of the steam locomotive to the needs of transportation and the establishment of the commercial railroad which has since revolutionized the commerce of the civilized world.

During the period in which the little wheezing, 8,000 pound locomotive constructed by Stephenson has grown into the present-day leviathan of steel weighing in some instances a half million pounds, and capable of pulling single trains containing more tonnage than an entire community consumed in a year in Stephenson's time, railroad construction in the aggregate—i. e., tracks, structures and equipment,—has undergone a marvelous development reaching to a state of practical standardization of structure, equipment and service throughout the United States. While we have in no sense a "completed railroad," at the present time the country is interlaced with thousands of miles of operating railways of standard track gauge and over which is operated a standardized and extensive equipment, interchangeable between connecting railways, in the performance of a transportation service of extreme flexibility and despatch.



## CHAPTER I.

### TRANSPORTATION AGENCIES.

- § 1. The Commercial Railroad.
- § 2. Development of Commercial Railroads in the United States.
- § 3. The Function of a Railroad.
- § 4. What Is "a Railroad."
- § 5. Locating a Commercial Railroad.
- § 6. Building a Railroad.



## CHAPTER I.

### TRANSPORTATION AGENCIES.

#### § 1. The Commercial Railroad.

Railroads are built for three reasons—political, military, and commercial, it frequently happening that the political and military conditions are found in combination with respect to a single railroad.

In the United States railroads have been built mostly for commercial purposes, and those built for political reasons largely outnumber those constructed to further military situations. These latter classes of railroads are negligible in number, practically all railways in the country now being operated as commercial lines. The Baltimore & Ohio Railroad was originally a political venture designed to promote the commercial interests of the city of Baltimore. The Union Pacific Railroad was originally constructed to subserve both military and political purposes. In Russia, the Trans-Siberian Railway is purely a military highway, built to facilitate the protection of the Czar's eastern domains. In fact almost all European railroads are built primarily for military purposes.

The commercial railroad is the one with which we are now concerned. These roads are built for direct or indirect commercial profit and are of two general classes—those built by the owners of natural resources which the railroad is designed to develop and those built for trans-

portation profit to be derived by the railroad as a common carrier.

It is a governmental function to provide proper highways for the commercial intercourse of the people, but this function may be performed by delegating to private individuals the right to build, maintain and operate such highways as common carriers. Thus arise the quasi-corporate carriers enfranchised to build and operate railroads as public utilities. Since private capital is invested in the enterprise the common carrier so created is entitled to earn a fair profit on its investment, even though its service is one of a public nature.

Commercial railroads constitute practically the entire railway mileage of the country and have been built under the authority, in most instances, of state charters. There are, however, several railroads in the United States, notably the Union Pacific Railroad, which were built under federal enfranchisement.

## § 2. Development of Commercial Railroads in the United States.

The commercial railroad in the United States has become an integral part of both the commercial and social structure. From a beginning in which the function of the commercial railroad was dubiously received by the general public it has developed into a national system of rail transportation lines threading the vast reaches of the country with an aggregate mileage second to none other in the world, forming a system of inter-communication interwoven with an extreme complexity of industrial, commercial and social conditions.

The first available authentic statistics of railroad development in the United States date from 1870. In that year, there were 52,898 miles of commercial railways in the

United States, employing 163,303 persons. The population of the country was 38,558,371. For every 729 persons there was a mile of commercial railway in operation. In the next ten years this railway mileage practically doubled and the number of persons employed by railways increased to 418,957. The population increased to 50,155,783, making a mile of railway for every 535 persons. In 1890, 163,597 miles of railways were in operation, employing 749,301 persons. With a population of 62,622,250 there was a mile of railway for every 338 persons.

This tremendous growth of commercial railways is nowhere in our commercial history more forcibly emphasized than in the four years following 1890. The mileage increased to 213,904 and the employees of railways to 1,296,121. The population increased to 81,249,122, affording a mile of railway for every 380 persons.

In 1914, the total railway mileage of the United States was 252,230, divided among the states as follows:

Alabama, 5,406	Louisiana, 5,720
Alaska, 460	Maine, 2,270
Arizona, 2,273	Maryland, 1,429
Arkansas, 5,335	Massachusetts, 2,130
California, 8,368	Michigan, 8,933
Colorado, 5,739	Minnesota, 9,039
Connecticut, 999	Mississippi, 4,441
Delaware, 334	Missouri, 8,224
District of Columbia, 36	Montana, 4,846
Florida, 5,119	Nebraska, 6,170
Georgia, 7,432	Nevada, 2,418
Hawaii, 245	New Hampshire, 1,255
Idaho, 2,748	New Jersey, 2,312
Illinois, 12,139	New Mexico, 3,024
Indiana, 7,476	New York, 8,530
Iowa, 9,994	North Carolina, 5,418
Kansas, 9,256	North Dakota, 5,160
Kentucky, 3,780	Ohio, 9,147

Oklahoma, 6,397	Utah, 2,098
Oregon, 2,912	Vermont, 1,073
Pennsylvania, 11,634	Virginia, 4,611
Rhode Island, 205	Washington, 5,246
South Carolina, 3,686	West Virginia, 3,915
South Dakota, 4,238	Wisconsin, 7,611
Tennessee, 4,105	Wyoming, 1,820
Texas, 15,758	

Railway employees in that year numbered 1,710,296, a slight decrease from the years 1912 and 1913. The population of the country in 1914 was 98,200,000, with a mile of railway for every 389 persons.\*

This enormous growth of commercial railways in the United States has facilitated the localization of industry, firmly welded together the agencies of production adapted to the needs of particular localities, standardized and enlarged the products of industry, distributed commerce over vast areas, expanded existing markets and created new ones. Great traffic flows have been set in motion and industry, commerce, and transportation have coalesced into a mighty triumvirate of marvelous industrial, commercial and social progress in the upper-western hemisphere.

### § 3. The Function of a Railroad.

The function of a railroad is to afford efficient means for the commercial, political, governmental and social inter-communication of the nation. The question has been before the courts as to whether the function of a commercial railroad is sufficiently broad in scope to include the promoting of industrial activity in its capacity as a common carrier. The language of the Supreme Court, in its deci-

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\* The statistical information for the years 1870 to 1904 are taken from "Workings of the Railroads," by Mr. McPherson, and for the year 1914 from the Statistical Report of the Interstate Commerce Commission for the year ended June 30, 1914.

sion bearing upon this question, may not be interpreted to mean a denial of the right of a railroad company to take measures to increase its tonnage so long as such measures do not invade the specific statutory restrictions in the form of anti-trust and commodity-ownership legislation. Indeed, the most the Supreme Court said was that "it was no proper business of a common carrier to foster particular enterprises or build up new industries, but deriving its franchise from the legislature and depending upon the will of the people for its very existence, it is bound to deal fairly with the public, to extend to them reasonable facilities for the transportation of their persons and property, and putting all of its patrons upon an absolute equality." The decision of the Supreme Court included this significant language, "the right of the railroad to charge a certain sum for freight does not depend at all upon the fact whether its customers are losing or making by their business." But this is not saying that the railroad may not encourage by proper means the industrial and commercial activities which result in increasing its tonnage. That it may not lawfully discriminate in such stimulation of business the language of the Supreme Court leaves no doubt to be entertained.

It is not the policy of the law, either national or state, to permit railroads to enter into coalitions with industrial or commercial interests whereby the granting of secret rebates and preferential service is accomplished, but to hold that the function of the common carrier is to be confined solely to the furnishing of transportation is to strip the railroad of its economic value in the country's general industrial and commercial structure. The decision of the Supreme Court just referred to merely held that a railroad cannot be required to do more than furnish transportation, but it did not deny the right of the railroad to do other

proper things toward the fulfillment of its economic functions.

To the railroads, and to those great leaders in transportation affairs for which the development of American railroads has been responsible in the past, is due a large share of the credit for the enormous economic development of the United States in the last half-century. That we live today in an age of ease and luxury unknown to our forefathers is attributable to no other cause than that of our unprecedented development of transportation and its agencies of inter-communication. If the function of the railroad in the past had been held down to the mere rendering of its physical transportation service, our commercial and social progress would have been far less rapid and extensive.

The development of the transportation function by the railroads has been responsible for constant enlargement of industrial sections, development of industrial mechanism, and expanding distribution of industrial production. From coast to coast and from the gulf to the lakes our national railway system has fused production and consumption of the articles of commerce into an economic homogeneity hitherto unknown to the commercial history of the world.

The railroads not only supply the needs of the public, but they consume in large quantities the products of nature and of manufacture. They locate, and properly so, natural resources and encourage the development of them. They make possible the successful marketing of the products of industry and subjects of commerce which otherwise would have no cause for their production or movement. They encourage and facilitate the economic distribution of population and render accessible to agricultural and industrial development lands which otherwise would remain dormant for centuries to come.

The tendency of a commercial railroad to become monopolistic frightens the socialistic economist vastly more often than it actually disturbs our industrial and commercial economics. Barring those relationships of a vicious character which may be established between common carriers and the objects and patrons of their service, the function of the commercial railroad should be as broad economically as the policy of greatest development and most intensive industrial, commercial and transportation progress justifies.

#### § 4. What is "a Railroad"?

Before proceeding farther with the subject of locating and constructing railroads, it is important to determine precisely what is "a railroad."

"A railroad" was originally a roadbed of rails in contradistinction to a turnpike, and, indeed, this was the only distinction originally existing between the two forms of highway. Railroads in this sense were built at a period in advance of the advent of the steam engine and its contemporary in type, the steam locomotive. The motive power originally resorted to in the movement of vehicles was that furnished by man, the horse, and the sail. Experiments were actually conducted in the United States on the Baltimore & Ohio Railroad in the use of sails to propel vehicles along the rails. As late as the early '50s several hours of each day were set apart by the Pennsylvania Railroad Company during which horse-drawn vehicles were allowed to be drawn over the railroad by private individuals.

The railroad first found its origin in an attempt to overcome the friction of wheels running on the ground, it having been discovered that the lessened friction of the wheels on the rails permitted an increase in the load hauled in the

same vehicle. The railroad then was but a specially built highway for public use with privately owned vehicles. Moreover, the owners of the earliest railroads, both in the United States and England, did not own the equipment which passed over their railroads, but with the adoption of steam as a motive power necessary standardization of equipment in construction, shape, and size was recognized and resulted in a tendency to concentrate their ownership in the owners of the railroads. This concentration of ownership of rolling stock has persevered until at the present time all equipment and motive power used in the operation of commercial railroads is owned by the railroad company, with the exception of certain private cars, constructed to meet standard railroad specifications and the peculiar needs of extraordinary lines of business, but which when in service of transportation are treated as a part of the railroad's equipment.

"A railroad," in its modern sense, must however be understood to be a great deal more than the physical road of rails and rolling stock. It must be understood to embrace rights of way, road-bed, rails, equipment, and rolling stock, yards, grounds, buildings, stations, depots, structures, bridges and viaducts, sometimes ferries, telegraph, telephone and signal structures, as its physical entities, to which must be added its functional entities requiring the economic maintenance of its property, and proper relationships with the industrial, commercial, political, social and governmental activities with which it comes in contact.

### § 5. Locating a Commercial Railroad.

The determination of a proper location for a commercial railroad draws to the full upon the economic acumen of its promoters. A variety of conditions must be dealt with such as topographical, geographical, industrial, com-

mercial, political and social situations. While the pioneer railroads were located in a haphazard manner, enfranchisement of a railroad at the present time in most states is predicated upon a justification of its existence. In other words, the close governmental scrutiny to which projected railroads are now subjected requires the promoters to make a showing as to the necessity for the railroad in the territory in which they propose to locate it.

The cost of construction of a railroad is enormous at best and where severe topographical conditions are met with, requiring unusual engineering skill and energy, the cost per mile for construction often runs into prodigious figures. In order to justify the undertaking, both actual and potential traffic must be in evidence and the community of interest between localities such as justify or warrant, in their potential aspect at least, the linking together of such communities by a rail highway. Available rights of way, rivers to be crossed with expensive bridges, crossings of other railway lines, depression and elevation of tracks across other railroads and through cities, adequate terminals, yard locations, dock and wharfage facilities, are potential problems confronting the builder of railroads in his contemplation of a location. . Operating and traffic arrangements with connecting railroads, development of territory and its natural resources, cross country competition of other railroads, markets, traffic currents thereto, market competition, general character of traffic tributary to the proposed railroad, proximity of water competition, actual or potential, distribution of population and its possibilities in the future, and conditions and requirements of enfranchisement, taxes, etc., assume problematic proportions among the many details which enter into the undertaking of new railroad projects.

Hence, it is obvious that the proper location of a com-

mercial railroad requires keen economic insight into the many phases of human activity with which the railroad when established as a common carrier will come in contact. The result—a complicated and delicately adjusted analysis of the proposed railroad's relations with other railroads, and with industrial, commercial, and social conditions surrounding it—is a railroad so located as to bespeak for itself future prosperity and justify the confidence of its investors.

### § 6. Building a Railroad.

Within the confines of this volume we can do no more than give passing attention to the varied and complex problems of railroad construction.

Having determined upon its geographical location, the physical locating of the railroad involves its actual layout by survey and the detail work preliminary to the letting of contracts and the undertaking of the actual construction. The purpose of the surveys is to determine in advance what things must be done, which in many respects is quite as important as the doing of them. The ultimate result of the survey is a detail so accurately worked out that from it the construction specifications of the road may be rendered into workable plans and accurate estimates of cost made therefrom.

The ideal in railroad location and construction is a straight and level line of railway, but rarely, if ever, have the engineers choice of the ideal. Curves cannot be avoided and grades may not be entirely eliminated. The engineers approach their problems from two standpoints—(1) the character of the traffic to be carried when the road is built, i. e., whether light or heavy, and (2) the maximum grade and curvature for the economic and suc-

cessful operation of the railroad. Theirs is the duty to furnish definite knowledge of the factors of construction, for upon the accuracy of this preliminary detail of construction rests the loss or saving of thousands, perhaps millions, of dollars in the ultimate cost of building the road.

Construction policies in railroad building have changed in the last decade quite as pronouncedly as the physical agencies of construction have changed. Instead of the false economies resorted to in the past in the use of light rails, light ballast, narrow roadbeds, defective ties, improperly laid masonry, temporary bridges, etc., the paramount principle of railroad construction now followed is that of creating a permanent structure by use of standardized and tested materials, laid and built under technically supervised methods resulting in the conservation of ultimate cost even though initial investment is largely increased.

The pick and the hand shovel, horse, cart and other implements of the past, have given way to the steam plow and the steam shovel which build embankments and excavate at a great saving of time and money and achieve engineering triumphs unattempted in the past. Machine-bored tunnels, trains of automatic dump cars for the removal and redistribution of earth, machines for laying and adjusting rails, have all tended to revolutionize the tedious and expensive methods of the past and have resulted in vastly improved railroad structures with efficiency and permanency as their principal features.

We cannot here go into the minute details of construction and materials used in the building of a modern railroad, but attention is directed to the investigation into valuations of railroads and their property and the cost of their original construction now being conducted by the

Interstate Commerce Commission, which, when the report is available for public use, will afford the most scientific analysis of railroad construction cost ever produced from an authoritative source.

## CHAPTER II.

### CORPORATE, DEPARTMENTAL AND DIVISIONAL RAILWAY ORGANIZATIONS.

- § 1. Corporate Organization of a Railroad.
- § 2. Capitalization and Securities.
- § 3. Business Organization of a Railroad.
- § 4. Departmental Railroad Organization.
- § 5. Divisional Railroad Organization.



## CHAPTER II.

### CORPORATE, DEPARTMENTAL AND DIVISIONAL RAILWAY ORGANIZATIONS.

#### § 1. Corporate Organization of a Railroad.

In most instances, railroads in the United States operating as common carriers are corporate organizations; i. e., they are incorporated companies and thereby assume a legal status as corporate entities devoted to the construction, maintenance and operation of a public utility.

In several of the states, railroads are declared by the local constitutions or by the state statutes to be public highways, and while such constitutional or statutory declarations do not make them highways in the same sense as public wagon roads, upon which everyone may transact his own business with his own means of conveyance, in the sense of being compelled to accept of each and all, and to carry to the extent of their ability, railroads are generally agreed to be at least quasi-public highways, and in the decisions of the courts they are commonly spoken of as such.

In a strict sense railroad companies are private corporations as distinguished from public corporations, but because of their status as quasi-public highways such railroad corporations, although in some respects private, are not entirely so. Possessed of extraordinary and unusual powers railroad companies assume special obligations involving great public interests and are therefore properly

designated as quasi-public corporations, meaning that they are corporations affected with a public interest.

The assertion is frequently made that a railroad as a business is monopolistic in character. This is, in a general sense, true, but must not be confused with the thought that it is a legal monopoly. A railroad to be a legal monopoly must be endowed with an exclusive franchise such as will prevent other persons and corporations from carrying on a similar business in the same territory.

The doctrines of law applicable to the creation, organization, ordinary incidence, powers, liability, consolidation, dissolution, and re-organization of railroad corporations are many in principle and varied in detail and cannot be discussed at length within the limits of this volume.

The earliest railroad corporations were created by special legislative acts wherein charters were granted in which were enumerated the powers, duties, and liabilities of the corporation. In order, however, to secure uniformity in the powers conferred, to prevent the granting of special and exclusive privileges, and to secure to the state the right to alter, amend, or repeal the charter at pleasure, it has since become the almost universal rule for railroad corporations to be created by general laws provided for by either the constitutions or special statutes of the states.

The railroad corporation, in the main, does not differ in corporate structure from that of general corporations and the mode of creation and organization is likewise similar. The duration and extension of the corporate existence of the railroad corporation is regulated by the same general rules applicable to general corporations.

The persons involved in the corporate organization of a railroad company may be classified into three groups—(1) the stockholders, (2) the directors, and (3) the officers of the corporation. Bondholders become an attribute of the

corporation whenever the corporation issues its bonds as security for money borrowed, but ordinarily such bondholders are not a part of the body corporate. The stockholders constitute the body corporate and are presumed to exercise control over the corporation through the directors and officers elected by them.

In the formation and organization of the railroad corporation, the stockholders, at a duly called stockholders' meeting, adopt by-laws to govern the conduct of the corporation and proceed to elect directors, who in turn elect the officers of the corporation in accordance with and to carry into effect such by-laws.

The officers of a railroad corporation usually consist of a president, who acts as the chief executive officer, one or more vice-presidents who, in their official capacities, are assistants to the president, a treasurer and a secretary. Ordinarily, these officers are also members of the board of directors, it being the common practice to elect members of the board of directors to act in official executive capacities. The board of directors is presided over at its meetings by the chairman of the board. The president of the corporation may also be chairman of the board of directors or some other member of the board of directors may be selected as chairman, who, together with the board of directors, constitute the supreme executive head of the corporate organization.

Because of the many ramifications of the railroad business structure the corporate organization of the average railroad requires a multiplicity of officers and it is not uncommon to find the general executive offices, with exception of the presidency, occupied by several persons with relatively adjusted ranks. Thus, several vice-presidents are elected and each assigned to some important department of the corporation's business; assistant trea-

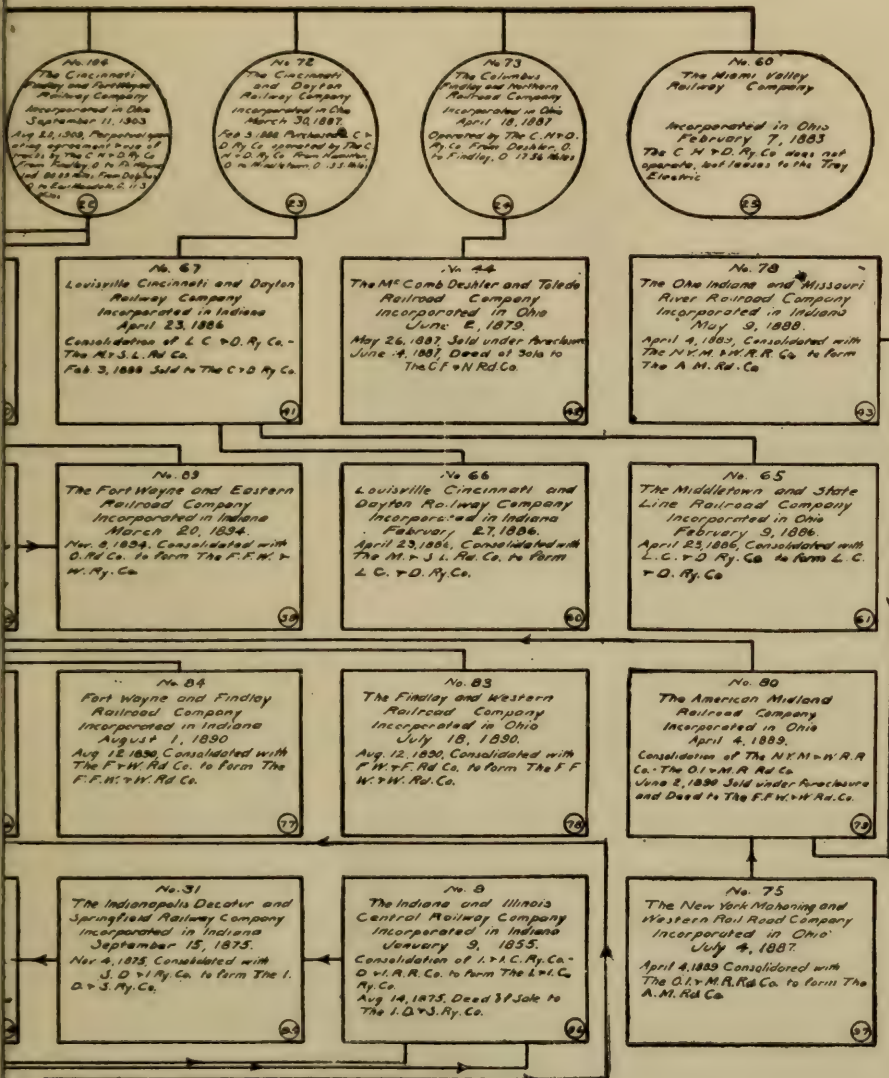
surers and assistant secretaries are found in practically all of the larger railroad organizations. The office of assistant to the president has been created in many of the larger railroad organizations and is usually filled in the same manner as other corporate offices in the corporation.

The railroad corporation, like any other private corporation, is endowed by law with the right to own, use, and sell property. It may contract and be contracted with. It may borrow money and give in security therefor a mortgage upon its property, and it is one of the approved methods of financing a railroad for the corporation to issue both preferred stock and bonds. The purchasers of these securities become preferred stockholders and bondholders and create one of the most extensive classes of investors and capitalists in the modern commercial world.

In the past, railroad securities have been second only to government bonds in their acceptability to investors, but within more recent years these securities have fallen to a lower level of attractiveness to financiers, because, as some claim, the restrictions of governmental regulation have interfered with the earning power of American railroad properties. Be this true or not, the fact remains that railroad securities on the average do not pay at the present time as high rates of dividends as in the past. This is probably due more to the change in general economic conditions throughout the civilized world and particularly to the radical advances in all industrial maintenance costs in the United States than particularly to restrictive legislation.

For a time, in the late '70s and early '80s, consolidation of railroad properties seemed the order of the day. Some of these consolidations were effected through singularly strategic methods. Disastrous rate wars not infrequently preceded the absorption of a railroad property by a com-

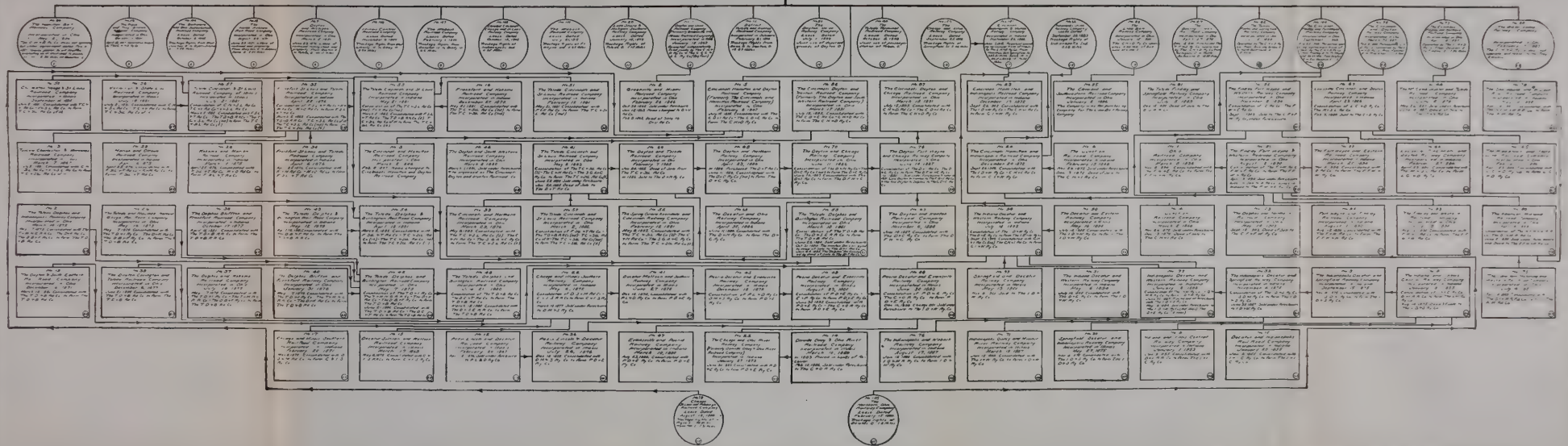
	Chart Place			Chart Place	
	No.	No.		No.	No.
and Evansville Railway Company	43	33	Toledo and Springfield Railway Company, (The)	81	39
and Evansville Railway Company	88	90	Toledo, Dayton and Indianapolis Railway Company, (The) (The)	21	62
and Decatur Railway Company	12	100	Toledo and Newmore Narrow Gauge Railroad Company, (The)	26	63
and Decatur Railway Company	36	101	Toledo Terminal Railroad Company, (The)	109	15
and Decatur Railway Company	99	91	Tuscola Charleston & Vincennes Railroad Company	13	44
and Cincinnati and Cincinnati Railway Company, (The)	52	69	Vermilion & State Line Railroad Company, (The)	56	27
Decatur and Indianapolis Railway Company	30	107	Wabash Railroad Company, (The)	110	10
Decatur and Indianapolis Railway Company	59	68	Wabash Railroad Company, (The)	107	8
Decatur and St. Louis Railroad Company, (The) (The)	61	50			
Decatur and St. Louis Railroad Company, (The) (The)	51	32			
Decatur and St. Louis Railroad Company, (The) (The)	55	30			
Decatur & St. Louis Railroad Company of Illinois	57	29			
Decatur and Burlington Railroad Company, (The) (The)	42	84			
Decatur and Burlington Railroad Company, (The) (The)	48	85			
Decatur and Burlington Railroad Company, (The) (The)	53	71			
Decatur & Burlington Railroad Company, (The) (The)	43	65			
Decatur & Burlington Railroad Company, (The) (The)	54	66			
Decatur and Springfield Railway Company, (The)	82	21			



No 93

The Cincinnati Hamilton and Dayton  
Railway Company  
Incorporated in Ohio  
July 18, 1893

Consolidation of Cincinnati, Hamilton and Dayton  
Railroad Company, The Cincinnati, Dayton and  
Houston Railroad Company, The  
Dayton and Chicago Railroad Company



peting railway system. Many of the great consolidations of railways were replete with corporate absorption and interlocking. Instead of extended analysis of these corporate manipulations the purpose of this volume will be well served by a tracing out of the corporate history of a single railway system, and when the magnitude of the corporate motion apparent in the annexed chart is fully perceived a highly instructive object lesson in railroad corporate organizations and consolidations will have been realized.

Interlocking railway directorates grew up and flourished in past years and in some instances brought about combinations and intercorporate relationships which in some instances the Interstate Commerce Commission has since condemned as not conducive to the public welfare.

A director in any corporation should be an active, not a passive, force. The affairs of the corporation should be so within his knowledge that he may at all times know and be charged with preserving the integrity of the corporation's designs. Ethically, the director of a railroad corporation should not accept such a position unless he can fill it in this comprehensive way. The practice of one man serving on many boards of directors is now strongly condemned for it is well reasoned that one who holds a director's position in a dozen corporations, while he may be thoroughly honest in his relations with each, is not so situated that he may give in a practical way to the stockholders of each corporation, the full benefit of his ability and energy. He can only afford a small fraction of his attention to each corporation and, obviously, he cannot know the real workings of each corporation.

Governmental activity in the last few years has been the cause of many extensive interlocking directorates being dissolved and such evil as may have resulted from

their existence removed from the railway corporate structure.

The subjoined chart illustrates the interlocking of directorates as in effect on the Cleveland, Cincinnati, Chicago and St. Louis lines in 1913, and will be found an interesting subject of study.

## § 2. Capitalization and Securities.

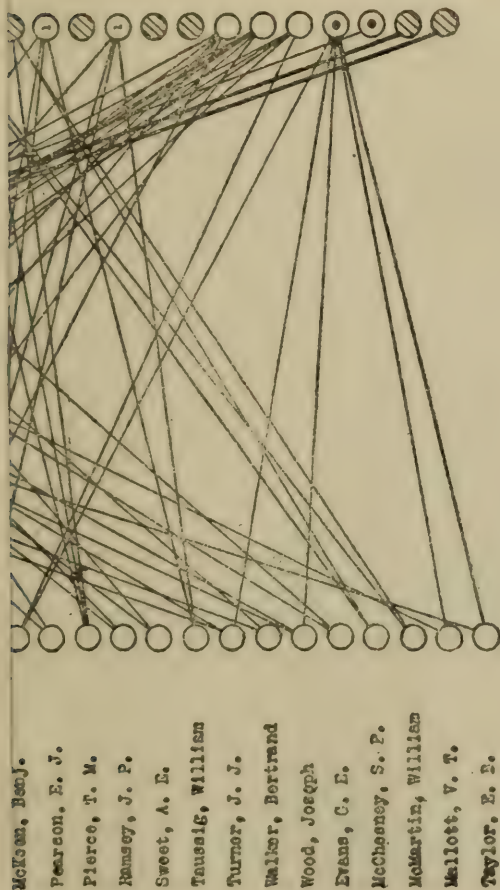
The performance of the transportation function by railroad by private enterprise involves a cost that is divisible into two parts—(1) the cost of capital and, (2) the cost of operation. The railway corporation must pay dividends on its capital stock and also interest on its funded debt, which in the aggregate comprises the cost of its capital. The cost of operating the railroad should, of course, be derived from its operating revenues.

Until a more technical definition of the term "railroad capital" results from the valuation investigation now being conducted by the Interstate Commerce Commission under congressional authorization, the term must be understood to mean the aggregate of securities issued, including not only those actually issued and outstanding but those also which have been reacquired and are held alive in the hands of some fiduciary of the issuing corporation and those which have been merely nominally issued but not yet delivered to a bona fide purchaser for value.

Railway capital is classified as stock and funded debt. Stock consists of both common and preferred issues and funded debt comprises such securities as mortgage bonds, collateral trust bonds, plain bonds, debentures and notes, income bonds, miscellaneous funded obligations and equipment trust obligations.

In the strictest sense the capital of a general corporation comprises only the stock that has been issued, but since

ST. LOUIS BRIDGES



Compiled from Reports of Railroads to Interstate Commerce Commission  
Poor's and Moody's Manuals, Directorates of Directors, etc.

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& ST. LOUIS DIRECTORS

Vanderbilt, William K.  
Baker, George F.  
Biles, W. P.  
Depew, C. M.  
Ledyard, Lewis Cass  
Jerome, Frank J.  
Brown, W. C.  
Soman, W. H.  
Vanderbilt, W. R. Jr.  
Hackney, Leonard J.  
Stillman, James  
Bookefeller, William  
Vanderbilt, F. W.

DIRECTORS IN CLEVELAND, CINCINNATI,  
CHICAGO & ST. LOUIS SUBSIDIARIES

Anderson, F. E.  
Pryor, E. B.  
Daab, F. C.  
Hewer, H. D.  
Howell, J. L.  
Ingalls, W. E.  
Kramer, E. C.  
Kavanaugh, W. K.  
Hope, J. W.  
Cox, H. W.  
Powell, T. C.  
Bernut, J. J.  
Park, W. L.  
Sexton, H. D.  
Loree, W. C.  
Walsh, Julius S.  
Miller, Henry  
Glendon, E. T.  
Willard, Daniel  
Schaff, C. E.  
Smith, A. H.  
Vineyard, C. A.  
Van Winkle, J. Q.  
Worcester, H. A.  
McChesney, W. S. Jr.  
McDonald, James A.  
Morgan, J. P.  
McKen, Benj.  
Pearson, E. J.  
Pierce, T. M.  
Raney, J. P.  
Sweet, A. E.  
Taussig, William  
Turner, J. J.  
Walker, Bertrand  
Wood, Joseph  
Drane, C. E.  
McChesney, S. F.  
McMartin, William  
Malloft, V. T.  
Taylor, E. B.

Cleve., Cin., Chi. & St. Louis  
Cairo, Vincennes & Chicago  
Central U. Depot & Ry. of Cin.  
Central Indiana  
Muncie Belt  
Chi., Ind. & St. L. Short Line  
Cin. & Southern Ohio  
Cin., Wabash & Michigan  
Cin., Lafayette & Chicago  
Cincinnati & Springfield  
Cincinnati Northern  
Cin., Sandusky & Cleveland  
Columbus, Hope & Greensburg  
Columbus, Springfield & Cin.  
Dayton & Union R. R.  
Dayton Union Ry.  
Evansville, Mt. Carmel & Northern  
Evansville, Mt. Carmel & No. of Ill.  
Fairland, Franklin & Martinsville  
Fidelity Belt  
Harrison Branch  
Indianapolis Union  
Belt R. R. & Stock Yards  
Kankakee & Seneca  
Louisville & Jeffersonville Bridge  
Mascout & Illinois Bridge & Belt  
St. Clair, Madison & St. Louis Belt  
Mt. Cleared Short Line  
Muncie Belt  
Peoria & Eastern  
Peoria & Pekin Union  
Saline Valley  
Springfield Union Depot  
Terminal R. R. Assn. of St. Louis  
East St. Louis Belt  
East St. Louis & Coronado  
Granite City & Madison Belt  
Illinois Transfer  
Interstate Transfer  
St. Louis Belt & Terminal  
St. Louis Terminal  
St. L. Merchants Bridge Terminal  
Madison, Illinois & St. Louis  
St. Louis Merchants Bridge  
St. Louis Bridge  
Terminal R. R. of East St. Louis  
Tunnel R. R. of St. Louis  
Union R. R. & Transit Co. of Ill.  
Union Depot Co. of St. Louis  
Wiggins Ferry  
East St. Louis Connecting  
St. Louis Transfer  
Vandalia  
Union Depot Co. of Columbus  
Vernon, Greensburg & Rushville  
White Water

Legend

○ Active

⊗ Inactive

⊙ Joint or minority interest

it is customary for railroad corporations to borrow large sums of money and otherwise extend their credit into funded debt obligations, the capital of the railway corporation must include the bonds as well as the stock. Indeed, a careful analysis reveals the fact that the greater portion of the money invested in railroads in the United States has been secured through the issue and sale of bonds. More than this, in some instances, the bondholders have actually created the railway property against which their mortgages run.

Prior to 1897, statistics by the Interstate Commerce Commission included current liabilities of a railroad corporation as a part of its capitalization, but since that time the government regulating authority has decided that only regular investments should be considered as capital.

The gross capitalization of railways from 1890 to 1915 is shown in the subjoined table of common and preferred stock, bonds, and other outstanding obligations of railways in the United States.

Railway bonds consist of two general classes: Mortgage and debenture. The holder of a mortgage bond has at law a lien on some specified part or all of the railway property and of which he may take possession under proper legal procedure in the event the interest and principal of his bond are not paid. Such bonds are usually designated in accordance with the kind of property against which they lie, such as general bonds, which are blanket in their nature, equipment bonds, terminal bonds, income bonds, etc. Bonds of these several classes bear a sequence of legal precedence towards each other, i. e., such bonds give to their holders a first, second, third, fourth, fifth, etc., mortgage on the property covered by the bonds. All of such mortgage bonds, except the first mortgage bonds, are

junior liens. In other words, precedence in the enforcement of the liens of the bonds is given to the first mortgage bondholders.

Debenture bonds, or "debentures" as they are commonly called, are secured by mortgage lien upon the income of the railway corporation derived from the sources specified in the debentures. In some instances debentures carry no other security than that of the general credit of the railway corporation. Debenture bonds are much more common among railroad securities in England than in the United States where mortgage bonds principally prevail.

Liens of all classes of bondholders take precedence over the claims of the stockholders, including those known as preferred stockholders, and dividends may not be declared upon stock of the railway corporation unless the interest on its bonds has been paid as well as the principal of such bonds, provided it is due.

General bonds of a railway are issued for long periods of time with provision for interest payable at stated intervals during the life of the bonds. Debentures are of shorter duration and sometimes amount to nothing more than promissory notes of the railway corporation.

The capitalization per mile of line of American railways is lower on the average than in European countries, notably Great Britain. Two reasons for this difference exist—(1) the building cost per mile of railroad in European countries is greater than in the United States for the reason that the procuring of rights of way is much more expensive and a greater number of costly terminals are required in those countries. In this respect, Great Britain offers the most accurate basis of comparison for the reason that railways in England are built by private capital, whereas in the larger continental countries the railways are mostly government-owned. The physical construction of a rail-

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(Year ended June 30—)	Stock.			Funded debt.					
	Common.	Preferred.	Total.	Bonds.	Miscellaneous obligations.	Income bonds.	Equipment trust obliga- tions.	Total.	Total railway capital.
	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
1890 .....	3,803,284,943	606,373,542	4,409,658,485	4,123,921,557	324,242,541	76,933,818	49,478,215	4,574,576,131	8,984,234,616
1891 .....	3,796,239,374	654,409,653	4,450,649,027	4,081,621,675	379,600,890	324,288,690	54,755,157	4,840,266,412	9,290,915,439
1892 .....	3,978,762,245	654,346,518	4,633,108,763	4,302,570,993	392,107,940	303,205,522	55,153,595	5,053,038,050	9,686,146,813
1893 .....	3,982,009,602	686,925,816	4,668,935,418	4,504,383,162	410,474,647	248,132,730	62,699,282	5,225,689,821	9,894,625,239
1894 .....	4,103,584,166	730,491,493	4,834,075,659	4,593,931,754	456,277,380	242,403,681	63,970,204	5,356,583,019	10,190,658,678
1895 .....	4,201,697,351	759,561,305	4,961,258,656	4,641,755,548	445,221,472	242,603,226	55,915,327	5,385,495,573	10,346,754,229
1896 .....	4,256,570,577	969,956,692	5,226,527,269	4,517,872,063	457,735,531	314,425,977	50,304,931	5,340,338,502	10,566,865,771
1897 .....	4,367,056,657	997,585,598	5,364,642,255	4,539,911,595	430,718,303	259,847,154	39,888,767	5,270,365,819	10,635,008,074
1898 .....	4,269,271,714	1,118,996,607	5,388,268,321	4,640,762,632	486,977,279	262,194,688	40,351,111	5,430,285,710	10,818,554,031
1899 .....	4,323,300,969	1,191,710,757	5,515,011,726	4,731,054,376	485,781,695	260,048,753	42,058,348	5,518,943,172	11,033,954,898
1900 .....	4,522,291,838	1,323,287,755	5,845,579,593	4,900,626,823	464,983,341	219,536,883	60,308,320	5,645,455,367	11,491,034,960
1901 .....	4,475,408,821	1,331,157,383	5,806,566,204	5,048,811,611	545,780,485	218,872,068	68,116,723	5,881,580,887	11,688,147,091
1902 .....	4,722,056,120	1,302,145,175	6,024,201,295	5,213,421,911	564,794,588	242,556,745	89,208,425	6,109,981,669	12,134,182,964
1903 .....	4,876,961,012	1,278,598,020	6,155,559,032	5,426,730,154	640,704,135	234,016,821	142,980,116	6,444,431,226	12,599,990,258
1904 .....	5,050,529,469	1,289,369,860	6,339,899,329	5,746,898,983	723,114,986	229,876,687	173,334,694	6,873,235,350	13,213,124,679
1905 .....	5,180,933,907	1,373,623,144	6,554,557,051	6,024,449,023	786,241,442	253,707,699	186,302,906	7,250,701,070	13,805,258,121
1906 .....	5,403,001,962	1,400,758,131	6,803,760,093	6,266,770,962	973,647,924	301,523,400	224,719,099	7,766,661,385	14,570,421,478
1907 .....	5,932,948,772	1,423,912,919	7,356,861,691	6,472,839,323	1,616,427,904	306,244,476	329,773,289	8,725,284,992	(1) 16,082,146,683
1908 (2) .....	5,910,351,430	1,462,860,893	7,373,212,323	6,610,189,953	2,180,965,753	258,584,016	344,592,782	9,394,332,504	(3) 16,767,544,827
1909 (2) .....	6,218,382,485	1,467,896,060	7,686,278,545	6,942,012,066	2,267,211,732	284,497,531	307,869,061	9,801,590,390	(4) 17,487,868,935
1910 (2) .....	6,710,168,538	1,403,488,842	8,113,657,380	7,408,183,482	2,250,998,522	290,951,276	353,341,578	10,303,474,858	(5) 18,417,132,238
1911 .....	6,933,680,313	1,390,092,125	8,323,772,438	9,882,641,088	196,430,395	261,777,220	319,596,749	10,735,217,470	19,208,935,081
1912 .....	7,125,165,338	1,368,682,954	8,493,848,292	10,332,948,198	140,600,843	269,371,927	316,143,410	11,130,135,443	19,752,536,264
1913 .....	7,231,515,045	1,379,096,282	8,610,611,322	10,483,070,005	82,658,275	250,290,655	369,285,450	11,185,514,385	19,796,125,712
1914 .....	7,304,479,846	1,376,279,858	8,680,759,704	10,821,025,138	72,700,640	254,230,505	418,540,270	11,566,541,553	20,247,301,257
1915 (6) .....	7,405,129,358	1,356,177,765	8,761,307,123	9,596,251,582	1,197,296,175	233,350,541	373,908,902	11,400,807,200	20,162,122,323

(1) Includes \$145,321,601, assigned to other than railway property.

(2) Excludes data of switching and terminal companies not segregated for years previous to 1908.

(3) Includes \$206,293,937, assigned to other than railway property.

(4) Includes \$202,434,630, assigned to other than railway property.

(5) Includes \$36,953,808, assigned to other than railway property.

(6) The aggregate returns for 1915 are not comparable with the 1914 figures, chiefly for the reason that this statement includes Class III carriers and their nonoperating subsidiaries and excludes the securities "Nominally outstanding." It should also be noted that data are shown for switching and terminal companies and their nonoperating subsidiaries, but such figures have not been included in the totals.

road in Great Britain costs more than in the United States due to the fact that British railways are required to be constructed as safe and strong as it is possible to make them; in other words, practically completed railway structures from the time of their original construction, and (2) it is the custom, notably in England, to charge all improvements to capital instead of paying for them, as American railways often do, out of current revenue.

It has long been the objective of both the state and national governments in this country to control the capitalization of railway properties and thereby eradicate from our financial structure any possibility of the over-capitalization and watering of stock of railway corporations. Moreover, those authorities which have attempted to regulate the transportation charges of the railroads have legislatively declared that such charges shall be just and reasonable, and the determination of what is a just and reasonable charge for transportation by railroad must, in its finality, rest upon what the railroad corporation is entitled to earn as a reasonable return upon its capital invested. Many of the states have placed upon their statute books laws in control of capitalization of and securities issued by railroad corporations. Congress has recently empowered the Interstate Commerce Commission to conduct an investigation into the value of railway properties within the United States for the purpose of more effectively inquiring into the reasonableness of railway rates. Coincident with such a determination of value and the fixing of adequate revenue levels the necessity for borrowing money and issuing railway securities will be reduced to its economic minimum.

The need of exercising control over railway capitalization was frequently pressed upon the attention of Congress by the Interstate Commerce Commission in its annual

reports to that body. In its report for 1908, the Commission urged upon Congress the need to exercise such control in the following language:

The problem of railway valuation touches the figure which should be allowed as a measure of the corporate investment placed at the service of the public; the problem of railway capitalization, on the other hand, as that word has come to be understood, pertains to the amount of securities that should be issued by a corporation and distributed to investors as the evidence and measure of their respective interests. What interest, if any, has the public in the amount and the kinds of securities issued by public service corporations?

The reasonable limit of stock and bond issues from the point of view of sound corporation finance is plain. No conservative management will increase securities beyond the ability of assured earnings to support the increased interest charges or dividend payments. To go beyond this would be to enter the domain of speculation. There may be cases in which it is wise, even in the interest of investors, to draw securities against future expectations, but speaking generally, and from the public point of view, it is better that a corporation whose solvency depends upon the use of speculative securities should acknowledge at once the necessity of reorganization rather than that the fund of the country's assured credits should be diluted by injecting into it paper of a speculative character. This assumption must approve itself to every observer of business conditions who appreciates the importance of a stable fund of business credits, and if Congress believes it within the sphere of the Government to take official notice of the distress and suffering incidental to commercial crises and business depressions, it can not proceed far along such a line of thought without being forced to recognize that the amount and character of corporate securities is an important element in the situation.

The direct interest of the Commission in the matter, however, arises from the fact that Congress has made this body a tribunal, when complaint is made, for inquiring into the reasonableness of railway rates. It has frequently been urged that capitalization exercises no influence upon rates, but such an assertion is at best a partial truth. When one holds in mind how persistently the courts oppose the enforced approach of railway tariffs to the line of confiscation; when one comes to realize how eager the carriers are to restore to their property accounts the value of the improvements of past years paid for out of revenues; when one clearly understands that so long as railways which operate on different levels of cost continue to compete for the same traffic, there must result a permanent differential profit to the more fortunate road; and, finally, when one reflects upon the fact that securities once issued are ordinarily beyond recall and beyond control, it is difficult to see how one can assert that the kind and amount of securities issued by a public service industry have no bearing on the problem of railway tariffs as that problem must be regarded by the Commission and by the courts. It is in fact the setting in which the problem is most frequently submitted for judicial consideration.

That available statistics do not afford the Commission a reliable measure of the money invested in railway properties nor of their present value, is evidenced by the following excerpt from its Twenty-Second Annual Report to Congress:

(See subjoined table.)

The balance sheet is, perhaps, the most important of the statements that may be drawn from the accounts of corporations, for, if correctly drawn, it contains not only a classified statement of corporate assets and corporate liabilities, but it provides in the balance, that is to say, the "profit and loss," a quick

and trustworthy measure of the success that has attended the operation and management of the property. Every balance sheet begins with "cost of property," against which is set a figure which purports to stand for the investment. This is no place to enter upon an extended criticism of the practice of American railways in the matter of their property accounts, nor is such a criticism necessary for the purpose in hand. It is sufficient to refer to the well-known fact that no court or commission or accountant or financial writer would for a moment consider that the present balance-sheet statement purporting to give the "cost of property" suggests, even in a remote degree, a reliable measure either of money invested or of present value. Thus, at the first touch of critical analysis, the balance sheets published by American railways are found to be inadequate. They are incapable of rendering the service which may rightly be demanded of them. One cure seems possible for such a situation, and one only, and that is for the Government to make an authoritative valuation of railway property, and to provide that the amounts so determined should be entered upon the books of the carriers as the accepted measure of capital assets. Under no other conditions can the Commission complete in a satisfactory manner the formulation of a standard system of accounts.

Lack of experience and ignorance of the actual requirements for the construction and equipment of a railroad and failure to recognize the necessity for its future rebuilding caused the original capitalization of many of the railroads in the United States to be entirely inadequate and to necessitate additional subscriptions to stock and recourse to a variety of methods for borrowing money.

Possibly the divergence between the British and American principles of enforcement of railway corporations accounts for the greater laxity in financial methods

ating revenues

receipts outstand-

receipts outstand-

receipts outstand-

receipts outstanding

receipts outstand-

receipts outstand-

COMPARATIVE RAILWAY CAPITAL ON JUNE 30, 1914

Class of roads and territory covered.	Total railway capital.	Stock		Stock	
		Amount.	Per cent of total capital.	Common	Preferred.
<b>Class I roads:</b>					
Eastern District	\$ 5,867,963,944	\$2,572,850,092	43.85	\$2,216,970,379	\$ 355,879,713
Southern District	2,674,447,829	999,512,800	37.37	804,266,050	195,246,750
Western District	8,112,157,625	3,307,596,319	40.77	2,680,410,110	627,186,209
Total	\$16,654,569,398	\$6,879,959,211	41.31	\$5,701,646,539	\$1,178,312,672
<b>Class II roads:</b>					
Eastern District	\$282,151,444	\$121,910,909	43.21	\$110,667,497	\$11,243,412
Southern District	171,498,971	95,450,350	55.66	78,423,250	17,027,100
Western District	389,066,820	225,631,650	57.99	204,652,350	20,979,300
Total	\$842,717,235	\$442,992,909	52.57	\$393,743,097	\$49,249,812
<b>Nonoperating roads (subsidiary to Class I and Class II roads):</b>					
Eastern District	\$1,392,628,339	\$ 751,499,100	53.96	\$ 689,977,478	\$ 61,521,222
Southern District	202,973,182	71,995,182	35.47	70,995,182	1,000,000
Western District	1,154,413,103	534,313,302	46.28	448,117,150	86,196,152
Total	\$2,750,014,624	\$1,357,807,584	49.37	\$1,209,090,210	\$148,717,374
<b>Class I roads, Class II roads, and their non-operating subsidiaries:</b>					
Eastern District	\$ 7,542,743,727	\$3,446,260,101	45.69	\$3,017,615,754	\$ 428,644,347
Southern District	3,048,919,982	1,166,958,332	38.27	953,684,482	213,273,850
Western District	9,655,637,548	4,067,541,271	42.13	3,333,179,610	734,361,661
Total, 1914	\$20,247,301,257 <sup>1</sup>	\$8,680,759,704 <sup>2</sup>	42.87	\$7,304,479,846 <sup>3</sup>	\$1,376,279,858 <sup>4</sup>
Total, 1913	19,796,125,712 <sup>5</sup>	8,610,611,327 <sup>6</sup>	43.50	7,231,515,045 <sup>7</sup>	1,379,096,282 <sup>8</sup>
Total, 1912	19,547,639,509 <sup>9</sup>	8,493,848,292 <sup>10</sup>	43.45	7,125,165,338 <sup>10</sup>	1,368,682,954 <sup>11</sup>
Total, 1911	18,979,217,516 <sup>12</sup>	8,323,772,438 <sup>13</sup>	43.86	6,933,680,313 <sup>14</sup>	1,390,092,125 <sup>15</sup>
<b>United States, 1912</b>	<b>\$19,752,536,264<sup>16</sup></b>	<b>\$8,622,400,821<sup>17</sup></b>	<b>43.65</b>	<b>\$7,248,749,515<sup>18</sup></b>	<b>1,373,651,306<sup>19</sup></b>
United States, 1911	19,208,935,081 <sup>10</sup>	8,470,717,611 <sup>21</sup>	44.10	7,074,917,534 <sup>21</sup>	1,395,800,077 <sup>18</sup>
United States, 1910	18,417,132,238 <sup>22</sup>	8,113,657,380	44.05	6,710,168,538	1,403,488,842
United States, 1909	17,487,868,935 <sup>23</sup>	7,686,278,545	43.95	6,218,382,485	1,467,896,060
United States, 1908	16,767,544,827 <sup>24</sup>	7,373,212,323	43.97	5,910,351,430	1,462,860,893

NOTE: Class I roads are those having annual operating revenues above \$1,000,000; Class II are those having annual operating revenues from \$100,000 to \$1,000,000; and Class III are those having annual operating revenues below \$100,000.

<sup>1</sup> Does not include returns for switching and terminal companies.

<sup>2</sup> Includes \$39,396,988 assigned to "Other properties," \$1,023,604,042 held by or for issuing companies, and \$59,911,551, receipts outstanding for installments paid.

<sup>3</sup> Includes \$140,705,202 held by or for issuing companies, and \$8,059,734, receipts outstanding for installments paid.

<sup>4</sup> Includes \$8,059,734, receipts outstanding for installments paid.

<sup>5</sup> Includes \$10,293,700, debenture stock.

<sup>6</sup> Includes \$36,340,807 assigned to "Other properties," \$948,689,876 held by or for issuing companies, and \$47,703,555, receipts outstanding for installments paid.

<sup>7</sup> Includes \$128,289,584 held by or for issuing companies, and \$27,077,317, receipts outstanding for installments paid.

<sup>8</sup> Includes \$27,077,317, receipts outstanding for installments paid.

<sup>9</sup> Includes \$37,801,980 assigned to "Other properties," \$746,012,466 held by or for issuing companies, and \$13,102,913, receipts outstanding for installments paid.

<sup>10</sup> Includes \$64,474,323 held by or for issuing companies, and \$217,653, receipts outstanding for installments paid.

<sup>11</sup> Includes \$217,628, receipts outstanding for installments paid.

<sup>12</sup> Includes \$25, receipts outstanding for installments paid, and \$10,293,700, debenture stock.

<sup>13</sup> Includes \$35,674,334 assigned to "Other properties," \$754,997,296 held by or for issuing companies, and \$6,383,910, receipts outstanding for installments paid.

<sup>14</sup> Includes \$100,115,280 held by or for issuing companies, and \$5,550,250, receipts outstanding for installments paid.

<sup>15</sup> Includes \$4,409,218, receipts outstanding for installments paid.

<sup>16</sup> Includes \$1,141,032, receipts outstanding for installments paid, and \$10,293,700, debenture stock.

<sup>17</sup> Includes \$37,932,835 assigned to "Other properties," \$763,190,788 held by or for issuing companies, and \$13,280,023, receipts outstanding for installments paid.

<sup>18</sup> Includes \$69,953,545 held by or for issuing companies, and \$244,763, receipts outstanding for installments paid.

<sup>19</sup> Includes \$244,738, receipts outstanding for installments paid.

<sup>20</sup> Includes \$35,775,324 assigned to "Other properties," \$771,114,135 held by or for issuing companies, and \$6,399,971, receipts outstanding for installments paid.

<sup>21</sup> Includes \$107,441,719 held by or for issuing companies, and \$5,566,311, receipts outstanding for installments paid.

<sup>22</sup> Includes \$4,425,279, receipts outstanding for installments paid.

<sup>23</sup> Includes \$36,953,808 assigned to "Other properties."

<sup>24</sup> Includes \$202,434,630 assigned to "Other properties."

<sup>25</sup> Includes \$206,293,937 assigned to "Other properties."

pursued in the earlier American railway projects. In the United States the estate of the carrier corporation is of a different status than it is in Great Britain. Under the English plan, the charter of the railway corporation—its right to exist by the grace of English sovereignty—is inalienable. It therefore possesses no value as a pledge and may not be bound by mortgage. In England the most the railway corporation can pledge is its income and in case of failure to comply with its obligations to its debenture holders its net income only can be applied to their benefit. The mortgagee of an American railway property acquires a vested right in the estate of the corporation and under this investiture the railway property may be subjected to foreclosure sale for non-payment of the principal of its bonded debt at maturity and also for failure to pay the installments of interest or any of them within certain periods after they become due. The equity of redemption is quickly forfeited by an American railway corporation long before the principal of its debt matures, provided it becomes in default of interest to even a relatively small amount. A bondholder, or a small number of bondholders, may institute foreclosure proceedings or a majority of the bondholders may authorize the trustees to buy in the railway property, reorganize the corporation, and create new mortgages if necessary.

From 1876 to 1879, 450 railway corporations were sold under foreclosure; 132 railway companies, in 1883, passed into the hands of receivers and in 1894 receivers for 192 railroads controlled one quarter of the entire capitalization of American railways. Many of these receiverships endured for ten years or more. A review of the situation in 1903 shows a marked improvement, with but 27 railroads in the hands of receivers, of which 9 short lines passed into receivership during that year.

The law of receiverships in the United States gives to a receiver most important functions. Created by the court, the receiver is responsible only to the court and is outside of direct legislative sanction. A railway receiver is charged with the responsibility of protecting both the mortgagees and the mortgaged property. In the proceedings through which the receiver is appointed the railway corporation is summarily divested of the management and control of both its affairs and its estate and the creature of the court—the receiver—becomes charged with responsibility therefor.

The judicial procedure in railway bankruptcy proceedings is far from being uniform. The jurisdiction of railway bankruptcy proceedings lies in the federal courts and each of the federal district courts constitutes its own set of rules for the government of such cases. In the appellate procedure, through which the action of the federal district courts is reviewed, the federal circuit courts pass upon the action of the district courts and instead of harmonizing the judicial rules of receivership procedure these circuit courts have, in many instances, widened the divergencies created by the district courts, and instead of having a single court of last resort in receivership matters we have no less than nine courts of last resort.

Reorganizations and consolidations of railway corporations often lead to various financial manipulations. The railway corporation may acquire and own stock or bonds of another railway corporation. "Dissolution" and "reincarnation" are terms not frequently met with in railway corporate parlance; nevertheless they vividly express that which has frequently taken place in the reorganization and consolidation of railway corporations. Practically all of the larger railway systems of the present day are the

result of corporate dissolution and reincarnation in the past.

It must not be assumed that all railway corporate reorganizations are predicated upon sinister motives of one or all of the interests involved. That we have today a vast number of short profitably operating lines of railway, in place of mere railway skeletons, is due to the welding of unconnected lines into homogeneous systems by means of corporate reorganization and consolidation. Public interest is better conserved where such short lines may be linked together in a continuous system or become feeders to a trunk line.

In consolidations of this character stock may be legitimately issued at values below par in order to equalize the prior market values of the stocks included in the consolidated corporation. So too, bonds may be exchanged for a proportionately larger amount of stock if such bonds are an underlying security or bear a comparatively high rate of interest. Such an exchange of bonds for stock may lighten the interest burden of the consolidated corporation. Many intricate situations are created in such consolidations and the resulting exchanges of stocks and securities. Bonds of different priorities attaching to the success of the consolidation, frequently disturb its orderly consummation. Cash capital is usually required to disburse small debt claims and furnish the consolidated corporation with a margin of working funds.

The detail of reorganization and consolidation of railway corporations is typically illustrated in the following epitome of the reorganization of the Northern Pacific Railway Company taken from the report of the Interstate Commerce Commission in *City of Spokane vs. Northern Pacific Railway Company*, 15 I. C. C. Rep. 376, at page 399.

The so-called "Northern Pacific System" at the time of

its last receivership embraced some thirty independent properties operated under one management. A reorganization was undertaken by which the receivership was terminated and this heterogeneous mass transformed into a homogeneous whole—in other words, the consolidation of all these properties into one compact system. Under this reorganization plan, \$130,000,000 of four per cent bonds known as “prior lien” bonds were secured by a first lien upon the entire property and \$60,000,000 of three per cent bonds known as “general lien” bonds were secured by a second mortgage upon the same property. \$25,000,000 of the prior lien bonds and \$84,000,000 of the general lien bonds were reserved in the treasury of the company for the future development of the property, the balance being either issued in payment of various mortgages previously existing against the properties, at prices named in the plan of reorganization, or held by the company as security for the payment of such mortgages when they fell due.

In 1900 a mortgage of \$20,000,000 was placed upon the St. Paul and Duluth division of the Northern Pacific Company. The proceeds of this mortgage were to be used in payment for the St. Paul and Duluth Railroad which had been purchased by the Northern Pacific a short time prior to the issuance of the mortgage. \$8,000,000 of these bonds were still outstanding at the time of the Commission's investigation. Certain of the prior lien bonds had been retired so that the total bonded indebtedness of the Northern Pacific at that time was \$187,000,000 bearing an average rate of interest of something less than four per cent and carrying fixed charges of substantially \$7,000,000.

Included as a part of this same reorganization plan \$75,000,000 of preferred stock and \$80,000,000 of common stock were issued with the privilege attaching to the preferred stock of retiring the same at par at certain intervals

during the ensuing twenty years. This privilege was subsequently taken advantage of and for the purpose of securing funds with which to make the payments, a corresponding amount of common stock was issued. The only stock of the company at the time of the Commission's investigation was therefore common stock of a total issue of \$155,000,000.

It appeared from the record before the Commission that the old Northern Pacific had both a preferred stock and a common stock, it being stated that the amount of the preferred stock was \$51,000,000 and of the common stock \$49,000,000.

Of the new stock above mentioned \$2,500,000 of the preferred and the same amount of common were reserved as treasury stock and for reorganization purposes. Of the balance a certain amount of preferred stock was used in the satisfaction of mortgage liens. The net balance was exchangeable upon the following terms:

Upon payment of \$10, a share of preferred stock was issued to stockholders having \$50 of old preferred stock and \$50 of old common stock, and a share of new common stock was issued in exchange for a share of old common stock upon payment of \$15 in cash. The new preferred stock was practically all taken up under the plan of reorganization, but a large number of shares of common stock was not subscribed for by the holders of the old common stock and this common stock was subsequently sold to Mr. James J. Hill and his associates for \$15 per share.

The capitalization of the Northern Pacific Railway at the time of the Commission's investigation in 1909 was therefore about \$342,000,000 or substantially \$57,800 per mile of line. The capitalization of the old companies embraced in the new system it was claimed was approximately \$380,000,000.

The statistical report of the Northern Pacific for the year ended June 30, 1907 showed that company had voted an additional issue of \$95,000,000 of common stock, none of which at the time of the filing of the report was outstanding. The Commission commented upon this fact and from the facts before it questioned the necessity for or the purpose of this stock issue.

The Northern Pacific and the Great Northern companies own jointly the Burlington system and have each issued their obligations in the sum of \$107,000,000 in payment for that property.

The preferred stock issued in accordance with the plan of reorganization called for a dividend of four per cent before anything was paid upon the common stock. This dividend was regularly paid until the preferred stock was retired by the issue of an equal amount of common stock.

Dividends were not paid on the common stock until 1899 when a dividend of two per cent was declared. This rate of dividend was increased to three per cent in 1900, to four per cent in 1901, and to six per cent in 1902. In 1903 the conversion of preferred into common stock occurred and the dividend of that year was equivalent to practically six and one-half per cent upon the entire stock issue. The payment of regular seven per cent dividends began in 1904.

The auditor of the Northern Pacific, in the course of his testimony before the Interstate Commerce Commission stated that on the average only sixty-four one-hundredths of one per cent was paid in the way of dividends upon the capital stock of the company between the end of the first receivership and September 1, 1896.

This epitome of the reorganization of the Northern Pacific System is less complex and intricate in its detail than many of the larger railway reorganizations and con-

solidations, but it is typical of the methods pursued in such transactions.

In the hearing in the Five Per Cent Case attention was drawn to the cost of railway capital under present conditions and to its nonavailability in the future.

Mr. Charles A. Conant, following his investigation and study of the effects of the present European war on the supply of investment capital and of increasing difficulty in securing additional railroad capital, in the course of his testimony said:

The effect of the present war in Europe and the east on the supply of capital available for investment will inevitably be more serious than anything which has occurred within the memory of the present generation, or since saving for investment and the development of railway and machine production became an important factor in economic life. The modern world has become so accustomed to finding the necessary capital for any important enterprise which promises benefit to the community that it has almost lost the sense of the rigid limitations imposed upon production by the supply of free capital. As it was put by Bagehot in 1873, in the comparative infancy of the modern financial mechanism, in his famous work, *Lombard Street*:

We have entirely lost the idea that any undertaking likely to pay, and seen to be likely, can perish for want of money; yet no idea was more familiar to our ancestors or is more common now in most countries. A citizen of London in Queen Elizabeth's time could not have imagined our state of mind; he would have thought that it was of no use inventing railways (if he could have understood what a railway meant), for you would not have been able to collect the capital with which to make them.

So accustomed are we to the smooth functioning of the mechanism of the money market, by which railway extensions and new industrial enterprises find the capital needed to carry them out from the continuous stream of private savings, that we do not realize the full effect of the stoppage of this stream or its diversion to different channels. The mere suspension of investments in the United States by European capitalists was one of the provoking causes of the panic of 1893. The result of such investments had been, according to the declaration of M. Raffalovich, the eminent Russian economist, that :

The true indebtedness of the United States abroad had been completely hidden by the influx of foreign capital. What the nation had to pay in interest on railway and municipal obligations and industrial investments had never been felt as a charge upon commerce, in consequence of the compensation which resulted from the uninterrupted entry of capital invested by Europe. (*Le Marche Financier* en 1893-94, p. 255.)

The fact that European financial centers endeavored to call back a small part of the capital which they had put into American securities was one of the chief causes of the fall in prices on the New York Stock Exchange during the week before the outbreak of the present war in Europe and of the closing of the exchange on the morning of July 31. The same influence—the refusal of European capitalists and investors to continue credits to this country—is the cause of the pressure for gold, the formation of the recent gold pool, and a rate of exchange on London far above the usual gold shipping point. Refusal of European investors to advance additional funds to Brazil has caused a moratorium there, while in Chile like conditions caused a sharp fall in the rate of exchange on London, which measures the local value of their paper money.

And these conditions in these two countries, I

might add, are typical of the conditions existing all over the countries to Latin America, which depend upon foreign credit to carry on their transportation and industrial enterprises.

The nations at war have been able thus far to rely to a considerable extent upon cash already on hand or upon advances in the form of credits by their national banks. The pressure on the supply of free capital which now exists will be intensified in years to come when the warring nations issue permanent loans to meet these temporary advances from the banks and when such loans to the amount of thousands of millions begin to weigh upon the market for securities.

The price of capital, like other commodities, is subject to the law of supply and demand. If the supply of capital is large and the demand therefor light, the owner of the capital must make concessions in order that his savings shall earn an income for him. If the order of things is reversed and the demand is large and the supply of capital scant, he who is fortunate enough to own capital may charge the highest price therefor, which he believes the necessity of the borrower will compel him to pay. And it is the view of such experts as Mr. Conant that it must inevitably follow that the great demand caused by the war loans will raise the rental price for the use of capital by railroads during a considerable number of years to come.

### § 3. Business Organization of a Railroad.

The business organization of a commercial railroad differs from the general corporate organization in many respects. In an elemental sense, it requires four kinds of officers to manage a railway property; viz., executive, operating, engineering, and traffic officers. "The question, what is the best organization for the management of

a large railway property," said the late President Perkins of the Chicago, Burlington & Quincy Railway Company, "is one which will admit of so much discussion and of such wide difference of opinion in the end, that it would be presumptuous to say that any given or particular plan is the correct one."

Two essentially different methods of business management have been practiced by the larger railway systems. One of these methods is to spread the working organization over the entire system; the other is to create a number of different working organizations or units of management, each complete in itself. These two methods are given more economic names in their actual use in railroad management. The first method referred to of spreading the working organization over the entire system is known as the departmental system. The other method is known as the divisional system, with each unit of management complete in itself. In Great Britain, the departmental system is by far the more prevalent, while in the United States the divisional system seems to be preferred.

In their detail the business organizations of some of our larger railway systems are modeled along military lines. The distribution of officers and department heads over the large army of railway employees resembles in principle the military organization of an army corps with the general and petty officers distributed among the units of the military army.

The management of a small railway property is a comparatively simple matter and the business organization frequently reflects throughout the personal tastes of the chief executive officer. The president of a small railway company frequently acts as general manager, general superintendent, and sometimes chief engineer. Where the road is very small, that is, not over 100 to 200 miles in

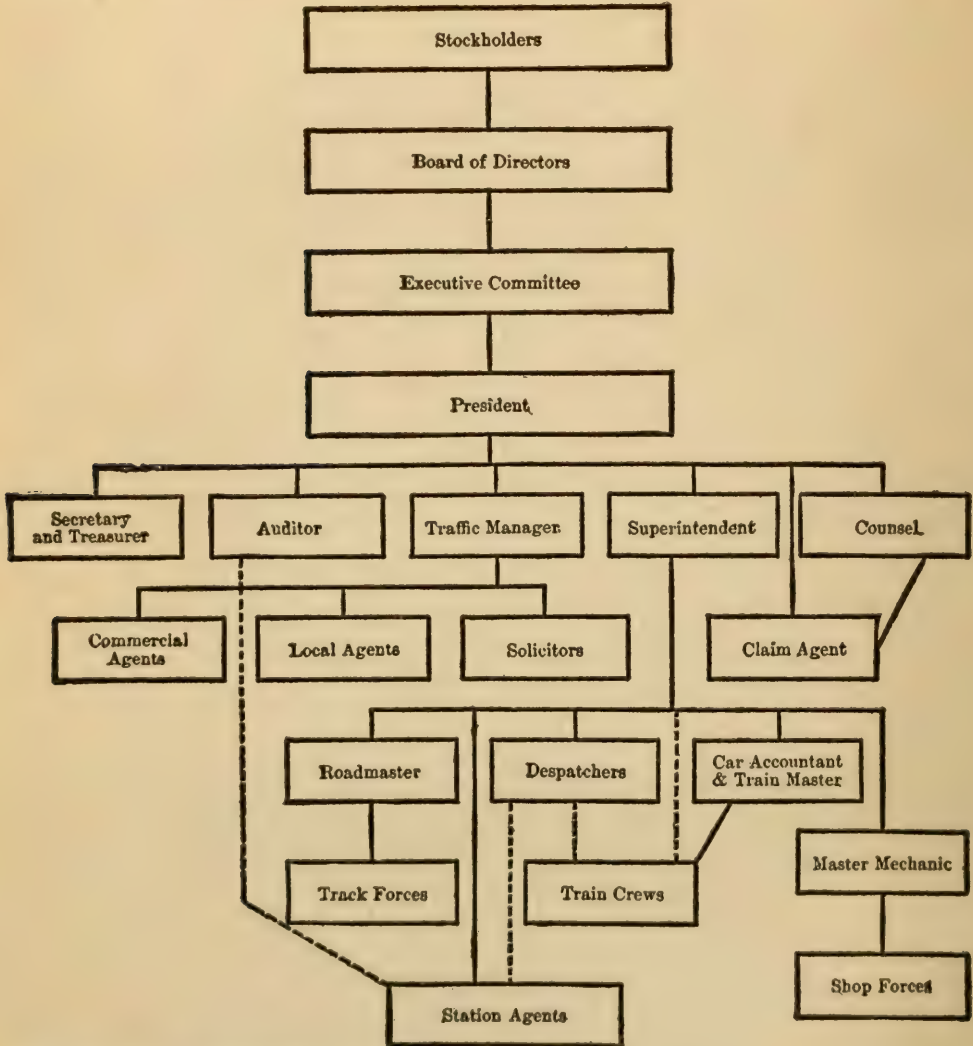
length, the president is usually the chief traffic officer also. In other words, the one man power in matters of detail is in effect through the combination of all these officers in himself. Great advantage inures to the small railroad property, the management of which can be concentrated in a single man. He is able to look after details himself and to effect thereby the greatest economy and efficiency in the operation of the property.

The business organization of any railroad property, large or small, is functionally similar, the main difference in the business organization of the small railroad, as compared with the large railway property, being one of detail under either one of the two methods or systems of organization just referred to. In the case of the small railroad such offices as vice-president, treasurer, secretary, general manager, general superintendent, etc., in the most simple form of organization represents merely the president's office staff and as legal officers do not exist at all.

There are two classes of small railroads, namely, small isolated lines, built to develop a particular kind of traffic or supply an industrial necessity, where the chief executive officer is able to give personal attention to all working details of the road, and small railroads reaching as far as two and three hundred miles in length where it is necessary for the president to have a simple but effective business organization the detail of which is effected by minor subordinates, the essential workings of which are illustrated in the chart on the following page.

The extent of organization for the management of the short line railroad may be characterized as one supplying the president with both staff and line officers who work under his direct control and carry into effect the detail of management as he directs. The most striking difference between the organization of the largest railroad systems,

the principles of which are founded on the same elemental functions as exist in the case of small railroads, is that in the case of the large railway system immediate authority over the workers in the railway service or any part of them,



From "Railroad Administration," by Morris

is never vested, except in the case of a departmental organization, in an officer higher up than the division superintendent; whereas in the case of the small railroad, the immediate authority of the president reaches to and includes employees of even minor importance.

In dealing with the business organization of a large railroad system we are obliged to revert again to the statement of the late President Perkins that "it would be presumptuous to say that any given or particular plan is the correct one." The great railroad systems are confronted with quite different situations than those encountered by the small railroad. The one man power in matters of management and detail finds no effective place in the larger organization. The problem of the larger organization is to obtain the advantages of efficiency which the small property with its small organization enjoys and at the same time preserve the strength and value of the large property with a large organization.

The main essentials to be subserved in the business organization of a large railway system are the scientific and rigid inspection of the property, maximum economy in the purchase of all kinds of material and supplies consumed by the railroad, the placing of men in places of responsibility and trust in charge of and directing thousands of employees in the railroad service, and a system of co-ordination to bring these various branches of management into a harmoniously working whole.

The departmental system, or the English system as it might be called, gives to the heads of departments a field as large as the extent of the entire railroad property, and since the average railroad system in the United States covers many hundreds of miles of territory, proper attention to details makes it necessary for such department heads to depend on subordinates far removed from their immediate oversight.

The divisional method of organization confines heads of departments to smaller fields, and renders them directly responsible to the local manager or superintendent having general charge of the service within an allotted jurisdic-

tion. This latter method, used with modifications, is characteristic of the administrative organizations of large railway systems in the United States.

#### § 4. Departmental Railroad Organization.

The theory of departmental organization is that it is economy to have and to use the best in all branches of railway service; in other words, that it is better for the forces in the railway service to work under the direct supervision of a highly paid general officer than if such forces worked under the direct supervision of a less experienced division officer. Under this system the functions of the chief officer are extended down into the departments of division superintendents. In this case a division superintendent would only have charge of the operation of trains, and if there was a destruction of track, he would have to take the matter up with the engineer of maintenance of way, who in turn would direct the forces in the roadmaster's department to make the necessary repairs and replacements.

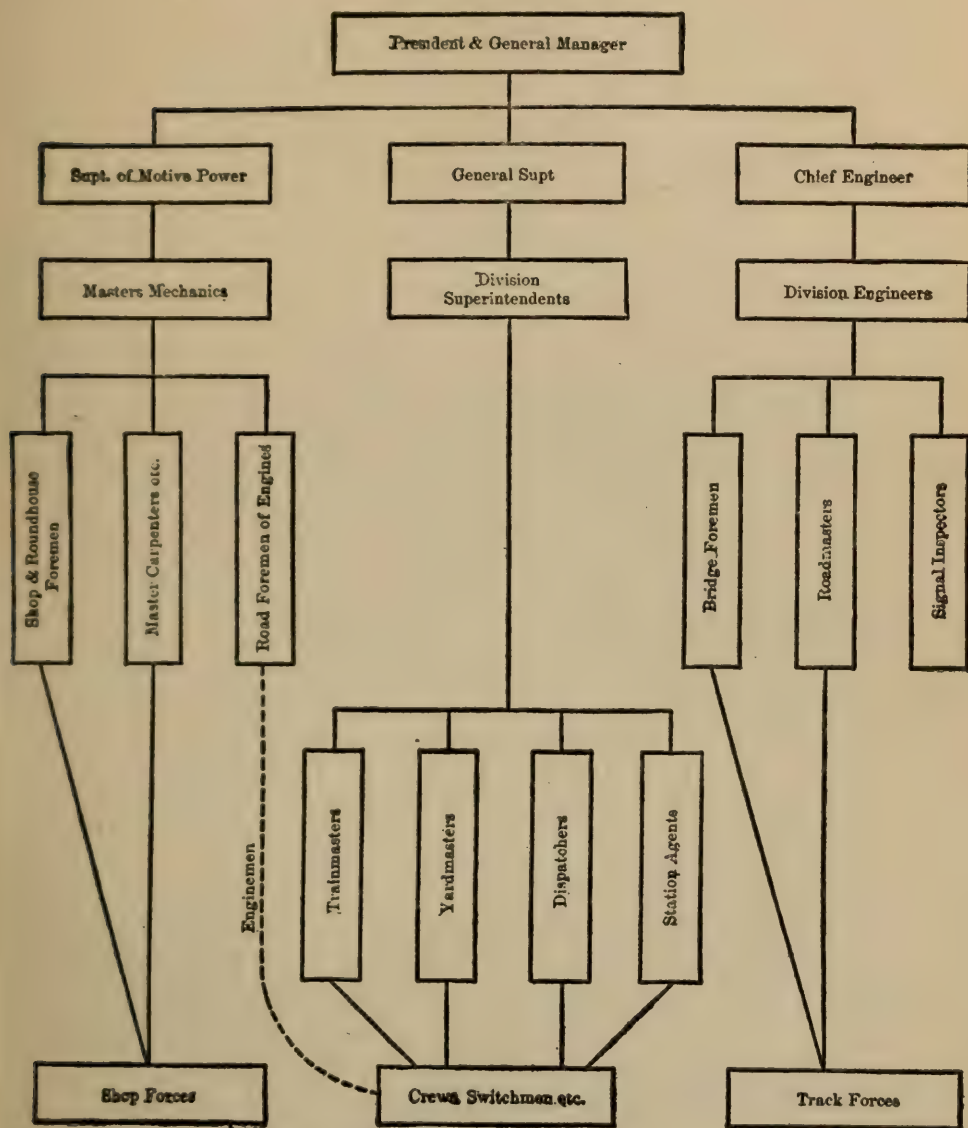
The following chart illustrates the departmental system of organization and indicates the independent line of managerial direction which nowhere meets short of the board of directors and the chief executive head.

The operating organization of the New York Central lines best illustrates the use of the departmental system in the United States. In this case, one of the largest of American railway systems is operated under the English system of organization and the president directs the operation of the entire system through three sub-heads, viz.: vice-president and general manager, general superintendent of motive power, rolling stock and machinery, and the general purchasing agent.

Under the New York Central system thirteen officers

report direct to the vice-president and general manager, and five officers report to the assistant general manager,

## DEPARTMENTAL



From "Railroad Administration," by Morris

who is an operating assistant to the vice-president and general manager.

The unit of operation is a division, and under the de-

partmental system a division superintendent is in charge of train movements only. In short, all departments, mechanical, civil engineering and operating concentrate in the office of the vice-president and general manager and those who carry the working detail of the railway system into effect are far removed from their directing heads.

Since the departmental system has but few notable instances of practical use in the United States, an analysis of the divisional organization of railways will be found typical of American railway administrative organizations and more instructive in comparing their functional activities.

A noteworthy discussion of the characteristic differences between departmental and divisional types of organization will be found in the following excerpt from the address of Mr. Arthur Hale before the students of New York University some fifteen years ago:

The question whether a division or a department organization is the better for our great railroads is one of great importance and should be considered in perhaps a more judicial manner than I can assume. With the one-division railroad I dismissed the question by saying that every approach to the department system weakened the superintendent without strengthening the president. For the larger systems I will venture the assertion that every approach to the department system weakens the superintendents without strengthening the general manager.

Strength and weakness are best shown in emergencies, and an actual emergency will best show how division and department organization work. On a certain occasion it became necessary to rebuild certain trestles near each other on parallel railroads organized differently. The superintendent of the railroad with a division organization got his carpenters together at once, bridge carpenters, shop carpenters

and all, and ran them by special train to the scene of the accident, with all the heavy timber he could get together, and simply reported the facts to his general manager. The superintendent of the road with a department organization could do nothing but report the facts to his general manager. The superintendent had no control of the bridge carpenters or the shop carpenters in his vicinity. It was a Sunday, and to tell the truth, he did not know where they were to be found. The general manager was not in much better plight, but he managed to organize a force composed of his general superintendent, his superintendent of floating equipment, and his engineer of bridges, and he made very good time with his trestle. It would have been better on a week day, but the organization went to pieces on Sunday.

Or take a more usual case, the investigation of an accident. A car goes off the track; is the trouble with the car, the track, or the speed? We must know, for it must not occur again. With a division organization such a question goes to the superintendent. He represents the three departments; he knows the territory and will decide the case in short order. Indeed, the mere fact that he will so decide frequently prevents his department from urging doubtful claims. With a department organization there is no impartial authority on the ground, and many investigations are closed without decision. Of course they can be carried to the general manager, but he cannot decide all such questions, more especially as his chiefs of department are quite likely to stand up for their own men.

From the side of economy and efficiency the division organization also has advantages. When a superintendent can be held responsible for everything on his division, he will see that he has enough men, and no more, to keep his engines and tracks in condition. Under the department system all the work will be authorized and done on orders from headquarters without so intimate a knowledge of local needs.

Of course the division system has its difficulties. The rivalry is here between divisions instead of between departments. This means that a firm hand is needed at headquarters to keep the rivalry healthy. The objection most often urged, however, is that certain officers on the staff of the superintendent will have a divided responsibility. The division engineer, for instance, must be responsible to his superintendent in certain matters, and to the chief engineer in others. The master mechanic also must serve two masters, the superintendent and the superintendent of motive power. And the subject is dismissed with the dictum, "a divided responsibility will never do."

The gentlemen who take this ground forget that our whole railroad system is based on divided responsibility. The agent reports to four departments, so may the conductor, while the enginemen and the firemen and the car inspectors report to two. If a fireman can safely report to both the trainmaster and the road foreman, cannot two of his superiors be trusted to do the same thing?

The only reason that it is safe for the firemen and enginemen to report to two superiors is that this responsibility is carefully defined in the book of rules, and that the men have been carefully disciplined in the matter. There is no greater difficulty in defining the dual responsibility of the division engineer and the master mechanic.

It is obvious that these officers should report to the superintendent in the matters of policy, discipline, and expense. To the chief engineer and superintendent of motive power they should report in all technical matters. But perhaps the best way to phrase this, is to say, that they should report to the superintendent in everything except in matters relating to standard design and method. It has always been recognized that standard designs come under the members of the general manager's staff. Where there has been difficulty, it can usually be traced to misunderstanding as to method of doing work, and the recognition

of standard methods should give the staff officers sufficient power as well as plenty to do, for these independent superintendents are sometimes hard to handle. \* \* \* The department organization is the best school for specialists. It will make you splendid trainmasters and most accomplished engineers in the civil and mechanical branches. But under the division organization you will train all-around railroad men.

### § 5. Divisional Railroad Organization.

The magnitude of the large railway system makes the administration of its affairs equal in importance to those of a government. It is constantly beset with many dangers of a technical and economic character that threaten its operating efficiency and menace its prosperity. Its forces must be marshalled into a compact organization in which the highest order of wisdom is required in order to conserve the efforts of its working forces. There must be an unbroken line of responsibility from the lowest subordinate to the highest executive officer and the organization by which this is accomplished must have in it sufficient flexibility to permit improvements in the service and the adoption of new technical and financial methods when necessary.

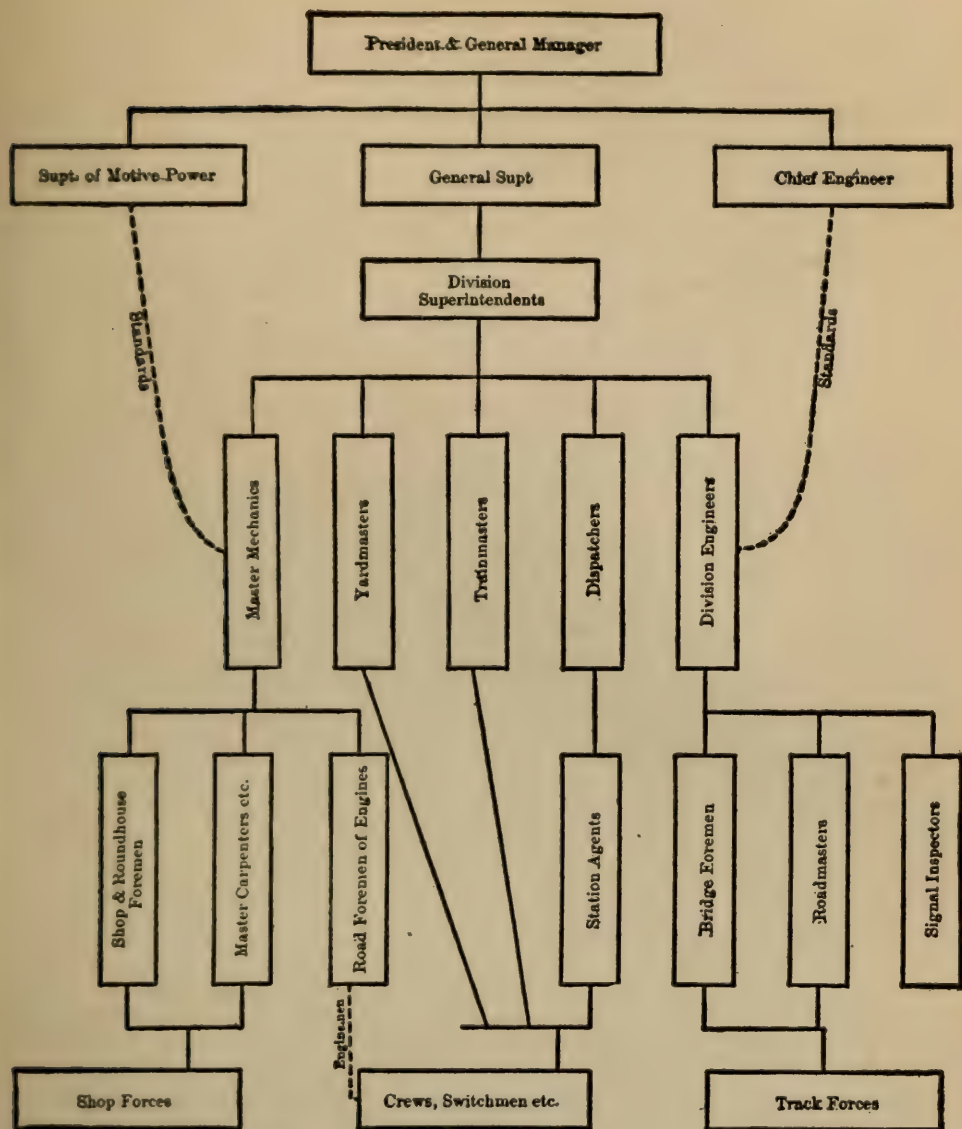
In the divisional system of organization most railway authorities are agreed this result is the most easily realized and it is a manifest fact that the deadly defect of the one-man power in detail in a large organization is removed. While it is possible for a man of exceptional capacity, by pure force of personality, even though he have a poor organization back of him, to bring about a fair result, the removal of his presence, even for a short time, impairs or destroys the efficiency of the organization as a whole. Moreover, if the organization be a large one, he cannot

bring its efficiency above a certain point because he will become swamped by detail and his attention taken away from the larger problems which he must solve in order to give adequate control to his organization. Here again the strength of the divisional system is apparent inasmuch as this method of organization creates units of authority each complete within itself and has for one of its basic principles the training of subordinates to take the place and do the work of their superiors.

The division superintendent under the divisional system is endowed with large authority, in fact his authority is such that he may executively and definitely deal with all emergencies which may arise in the operation of the railroad within his jurisdiction. Within his domain,—the division,—he is the supreme executive officer so far as questions of current operation are concerned. Station agents, train crews, work gangs, and other employees engaged in the operation of trains and the current maintenance of the railway property may not question the orders of the division superintendent, but must obey them and carry out their detail as directed. The larger railway systems organized on the divisional plan have, however, a headquarters organization which, in many respects, is characteristically departmental, but they prevent disturbance of the divisional organization by separating the functions of the staff and the line thus giving to the division superintendent as much line control as is possible, and this, even though the division superintendent is not likely to be a first class expert in more than one of the different kinds of work that have to be done within his division.

The divisional organization of a railway in its elemental form is illustrated in the following chart, which also indicates the lines of interdepartmental co-ordination:

## DIVISIONAL



From "Railroad Administration," by Morris

The operating organizations of the Pennsylvania lines, both east and west of Pittsburgh, are examples of the divisional system. The organization is a military one and consequently differentiates between staff and line officers, with full power of meeting emergencies vested in the line

officers. Next to the president, five vice-presidents, respectively, head the departments of operation, treasury, traffic, new construction, accounting, and real estate, insurance and pensions. The actual responsibility of operating the system division by division, lies in the division superintendents.

While the vice-president in charge of operation is a staff officer, his immediate subordinate, the general manager, is a line officer and reports direct to him. On the other hand, the chief of motive power is a staff officer and reports to the fifth vice-president in charge of the mechanical department. General superintendents, line officers, and general superintendents of transportation, as staff officers report to the general manager, thus harmonizing the operating and traffic departments. The distinction of staff and line officers is carried out among the subordinates of the general superintendents, such as superintendents of motive power, assistant engineers, and division superintendents.

In the relative order of their official capacities, the general manager is in charge of the whole railway system, the general superintendent of several divisions, and the division superintendent of one division. Thus, the lines of authority concentrate to make a unit of complete authority of the division superintendent's division, subject to the supervision of his superior officers in the order of their official sequence.

The divisional system of organization has been in effect on the Union Pacific Railway System since the advent of the Harriman control and in its detailed application to classified subordinates and employees is extended even farther than on the Pennsylvania Lines.

Major Charles Hine, a staff officer in the maintenance and operating departments of the Harriman system, put into effect a unit system of organization which was a con-

tinuance of the divisional method below the grade of division superintendent and which was intended as a measure to promote administrative harmony. He described his unit system as follows :

The most difficult task in any organization of human endeavor is to correlate the activities of the workers on the outside with the necessary requirements of correspondence, records and accounting on the inside. The artisan in the shop, the traveling salesman on the road, the soldier in the field, the sailor at sea, the railroad man on the line, all have their troubles with the man in the office. When the inside man knows the outside game at first hand such differences in points of view are minimized, friction avoided, and therefore money saved. Railway operation is the most exacting of human tasks. Like the conduct of a household, a farm, a hotel or ship, it is a continuous performance. Unlike those exacting occupations it must maintain its own communications over hundreds or thousands of miles of territory. So complex is its administration that chances should not be taken of losing money through half-baked decisions of partially trained office occupants. Most railway officials flatter themselves that when on the line they maintain a grasp on the office. Yet every hour in their absence action must be taken on matters which, apparently trivial in themselves, have far-reaching results. This statement is not a reflection upon the splendid ability and earnestness of railway officials. It is merely a recognition of the fact that a man can be in only one place at a time ; that there are only 24 hours in the day and only 365 days in the year. The salary of one official is negligible as a percentage of the operating cost of the average unit. Accordingly the system insists that the second best man of the unit with practical outside training, shall stay at headquarters and sit on the lid. In some cases it has been found necessary to appoint another official to

perform the previous outside duties of the senior assistant. In other cases it has been found that the outside work could be divided up among the other members of the staff.

In any system of organization the most important unit is the individual. It is claimed that when one man signs the name of another the first, by so much, loses initiative and individuality. A man's name is his birthright, his signature his patent of enlightened manhood. Long habit on railways has perhaps minimized the pernicious effect of unconsciously building up one individual at the expense of many. Such industrial feudalism, however, can no more permanently endure than did the feudal serfdom of the Middle Ages. The unit system, therefore, insists that every man shall transact the company's business in his own name. There is nothing new in this. The whole system is really an extended application of the simple principles of train dispatching. A train order is addressed impersonally "Conductor and Engineer-man." Where proper discipline obtains, the signatures to the orders are genuine. When the oldest conductor lays off, the youngest extra man does not sign the former's name to orders and reports. Addresses in official matters should be impersonal because of the possible difficulty of identification; because of the resulting elasticity in interior administration. One does not ordinarily address a letter to an individual attache of a firm, a bank, a hotel or a newspaper. He does not normally attempt to dictate who shall handle his communication. He leaves that to the intelligence and discretion of the organization that he is addressing. Under the unit system communications are addressed to the office—except when personal. The action taken, however, is by a real live man, whose identity is not concealed. The position is assumed that the recipient of a communication has the right to know what person is responsible therefor. The principle is established that except for a strictly personal staff, as for example a private secretary, all persons report ordinarily to

a headquarters or an office and not to an individual. The authority of such headquarters or office is always exercised by an individual. Authority, in an enlightened organization of society or industry, should be impersonal. Its exercise is highly personal.

The application of the above established principle to the reorganization of an operating division requires that the assistant superintendent shall become the senior assistant. If previously there is no assistant superintendent the trainmaster or most probable successor of the superintendent becomes the senior assistant.

The next step in making the division a complete unit with its head, the superintendent, in effect general manager, is to move the division master mechanic and the traveling engineer (road foreman of engines) to the same building with the superintendent. The division shop as a sub-unit is left in charge of a general foreman. The old theory has been that a master mechanic if located at the shops can better supervise the shop forces. It is believed that the volume of business and complexity of modern conditions have outgrown this theory. It is found in practice that the master mechanic spends much of his time in an office near the shop writing letters to the superintendent, the superintendent of motive power, and other officials. Again, human nature is such that the master mechanic so located may unconsciously dwell on the plane of the division shop foreman at the expense of the foreman's mechanical responsibilities along the road and at outlying terminals. When this results his value as a division official is diminished. The governing reason for locating the master mechanic and the traveling engineer with the superintendent is not only to gain a closer personal touch. Such contact is largely a matter of personal equation and of training regardless of location. The main object is to eliminate red tape by making possible a consolidation of files in one office of record. It has been demonstrated that relieved of a bureau of unnecessary correspondence the master

mechanic can and does spend more hours among his men whether in shops, on the road, or at terminals.

Assuming that the division engineer, the trainmaster, and the chief dispatcher are already located in the same building with the superintendent, the division is ready for reorganization. The general superintendent and the instructor visit division headquarters where are assembled the division officials and their old chief clerks. In an informal lecture of two or three hours' duration the principles of the system and its unwritten laws are outlined. Explanations are given of the revised standard circular of organization, which reads as follows:

..... RAIL..... COMPANY.  
..... DIVISION.

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OFFICE OF SUPERINTENDENT.  
CIRCULAR NO. ..

....., 191..

Effective ....., 191.., this Division discontinues among its officials the use of titles—Master Mechanic, Division Engineer, Trainmaster, Traveling Engineer, and Chief Dispatcher.

The following named officials are designated:

1. Mr. E. F..... Assistant Superintendent.
2. Mr. G. H..... Assistant Superintendent.
3. Mr. I. K..... Assistant Superintendent.
4. Mr. L. M..... Assistant Superintendent.
5. Mr. N. O..... Assistant Superintendent.
6. Mr. P. Q..... Assistant Superintendent.

They will be obeyed and respected accordingly.

Each of the above-named officials continues charged with the responsibilities heretofore devolving upon him, and in addition assumes such other duties as may from time to time be assigned.

Such of the above as are located in the same building have one consolidated office file in common with the superintendent.

All reports and communications on the company's business, originating on this division, intended for the superintendent, or for any assistant superintendent, should be addressed simply, "Assistant Superintendent" (telegrams "A. S."), no name being used unless the communication is intended to be personal rather than official, in which case it will be held unopened for the person addressed. It is intended that an assistant superintendent shall always be on duty in charge of the division headquarters offices during office hours. The designation of a particular assistant superintendent to handle specified classes of correspondence and telegrams is a matter concerning only this office. Each official transacts business in his own name, and no person should sign the name or initials of another. The principle to guide subordinate officials and employees is to be governed by the latest instructions issued and received.

Train orders will be given over the initials of the train dispatcher on duty.

The modifications of preexisting organization and methods herein ordered have been carefully worked out to expedite the company's business by the reduction and simplification of correspondence and records. It is expected and believed that officials and employees will insure a successful outcome by lending their usual intelligent cooperation and hearty support.

Officials and other persons outside the jurisdiction of this division are requested to address official communications, intended for the superintendent or any assistant superintendent, "Superintendent, ..... Division, ....." (telegrams "Supt."), without using the name of the superintendent except for personal matter.

C. D.

Superintendent.

Approved:

A. B.,

General Superintendent.

It will be observed that no distinct grade of senior assistant is created. The unwritten law is that whatever assistant is assigned to the charge of the headquarters' office becomes the senior for the time being. It was originally intended that different assistants should be detailed as the senior for certain definite periods. In some cases such a rigid rule may be necessary. The experience of a year indicates that the incidents and casualties of the service may usually be depended upon to let the situation work itself out. This is gratifying, since in such matters self-suggesting procedure is preferable to rigid rules. For example, if an assistant sprains his ankle or mashes his foot the superintendent can assign him to the office and send the then office man out on the road. Vacations and enforced absences afford the superintendent an opportunity to cover the situation by a common-sense assignment. On one division the senior assistant was necessarily absent for some weeks. The maintenance assistant who happened to be next in rank was busy outside relaying the division with new steel. The third man, the mechanical assistant, had few troubles of his own in summer, and to him fell the opportunity to be broadened by a tour in the office. The superintendent and the other assistants, including the old traveling engineer, did the engine chasing. No circular was necessary, and there was less confusion than if two dispatchers had exchanged tricks.

In order that their authority may not be restricted when meeting a given emergency it is necessary to give the division officials the uniform title of assistant superintendent, without the limiting effect of a descriptive phrase. If anyone can coin titles that will describe duties and not, under railway customs, restrict authority, such titles will be welcome. When a vacancy occurs the circular states, "Mr. .... is appointed an assistant superintendent vice Mr. ...." His assignment to duty by the superintendent is verbal. If a superintendent should find himself with an assistant unfitted by temperament or

experience to cope with a wider range of duties he could quietly restrict such assistant to a prescribed limit.

The assistant superintendents when at headquarters, except the senior assistant, have equal rank. On the road they have the relative rank indicated by the circular or the current working time-table. In case two or more find themselves together and an interruption to traffic or other emergency requires, the highest on the list takes charge and becomes responsible. The system forces more officials to assume responsibility and by so much increases the protection to the company's interests. More and more is heard about "this division," and "the company," and less and less about "my department."

Most division officials have welcomed the title of assistant superintendent as a real promotion and as an increase in opportunity. Some still feel the loss of a distinctive title. Time alone will prove that railroading has become great enough as a profession to carry its own marks of distinction and to permit of a properly balanced specialization along the lines of greatest aptitude. Men like Julius Kruttschnitt, James McCrea, L. F. Loree, Epes Randolph, J. W. Kendrick, F. A. Delano, and W. W. Atterbury have not lost any reputation as civil and mechanical engineers because of their greater prominence as railway executives. For the same reason that a chief engineer blushing accepts the title of vice president, a division engineer should modestly aspire to the position of assistant superintendent. This is one of the features of the unit system that it will take a generation to work out. Eventually an official cannot hope to perform the duties of chief engineer, or superintendent of motive power, until he has had experience in the grade of division superintendent. When superintendents are selected from diversified sources this will be possible. An advantage of the uniform title of assistant superintendent is that, as in the case of vice presidents, it necessitates speaking of a particular

official by name. When any official is away from his headquarters, he is addressed by name.

The unit system makes a distinction between superior or coordinate units and subordinate units. Employees address "assistant superintendent." If they addressed "superintendent" there would be an implied obligation on the part of the superintendent to answer. If his personal action is desired he must be addressed by name. Even though "assistant superintendent" is addressed, the reply may be signed by the superintendent himself. Subject always to his superior's wishes, the superintendent makes his own office rules as to what he shall personally handle. It is up to him to see all, a part, or nothing for a given period, just as he sees fit. Should the superintendent's letter **call** for further information from the employee, the latter's reply would still be addressed, "assistant superintendent." For all that the sender knows the particular official may be necessarily absent when the letter is received. Numerous old conductors have expressed their appreciation of the fact that a man knows what official has addressed him, and that it is no longer possible to be jacked up by a clerk using the name of an official.

Communications from superior or coordinate authority are addressed to the head of the unit, the superintendent. In his absence routine matters for higher or coordinate authority are signed by the senior assistant who appends to his own title the explanatory phrase, "for and in the absence of the superintendent." Going down on the division no such explanation is necessary, as the authority of any assistant superintendent carries over the division itself.

The superintendent being in effect general manager of his division is given charge of division stores as well as division shops. He must, therefore, obey the instructions of the general storekeeper as well as the superintendent of motive power. The general storekeeper has thus placed at his disposal all the adminis-

trative machinery of the division. Instead of a lack of practical sympathy between the stores and the users of material, it is made the duty of the superintendent and the assistant superintendents to watch material costs as well as labor costs, to help keep down interest charge on stocks as well as overtime. A railway company harnesses the forces of nature, including its divinely human elements, for one purpose, the manufacture and sale of an intangible commodity, transportation. The more closely interwoven the constituent parts of production the more efficient and economical should be the output. When weaknesses develop, when education is needed as to the increased importance of a given element, the remedy is not necessarily the creation of a separate department. A general storekeeper there should be, whatever his title, technically expert in his important specialty, responsible to the general manager and in a position to insist upon efficiency to the extent even of ordering material moved in special trains when it is true economy for the company to do so.

It will be noted that the superintendent, as the representative of all so-called departments on his division, has about as many superiors as he has assistants. The work of these superiors is balanced by the general manager. The scheme will not be fully effective until the unit system is applied to the general offices, making the general superintendent, the chief engineer, the superintendent of motive power, the general storekeeper, the car service agent, the superintendent of telegraph, the signal engineer, and the superintendent of dining cars all assistant general managers with one consolidated office file, and their activities coordinated by a senior assistant general manager at headquarters. Thus far only one general office, that of the new Oregon & Washington Railroad at Seattle, has been reorganized in accordance with this conception.

The number of divisions now reorganized is twenty-one with eleven still to follow. The number

of assistant superintendents on a division varies from three to twelve. Every superintendent has shown his ability to handle as many assistants as the management may give him. The most gratifying feature of the reorganization is the fact that in all cases the talent at hand has been sufficient. No importations have been necessary. The incumbents of official positions have responded splendidly to the confidence reposed in their ability. Some divisions have gone farther than others. This always has been and always will be the case. Everyone, however, has made real progress, some of it unconscious. The human element has been recognized. Division officials who from lack of early breadth of opportunity have not the qualifications for senior assistant are not required to fill the position. Their services to the company have been too faithful to warrant humiliation or elimination. Their grasp of present conditions is greater than could be that of student successors. When, in the course of nature, a new crop of officials matures it will be ripened younger but attain a fuller growth.

Consideration has been shown for the clerical forces affected by the changes. No individual has had his salary cut. As vacancies occur through natural causes salaries are readjusted; some increased, some diminished to meet the new conditions. All of these matters are left to the local officials. Principles are enunciated, suggestions made, but responsibility for details is left to the officials on the ground. The system means more officials and eventually fewer clerks. Probably by a cheese-paring effort enough clerks could be eliminated to offset such increases in official salary lists as have been found necessary. The management has felt that increased supervision will warrant the outlay. This liberal policy is justified by good business sense rather than by the prosperity of the Harriman lines. The poorer a road the more money it should spend for supervision and the development of *esprit de corps*.

Formerly office work was grouped around officials.

This resulted in petty principalities and bureaucratic administration. By tearing down some office partitions there were razed those figurative department walls, which so often operate to keep in the man who is trying to keep the other fellow out. Under the new conception the work is grouped by classes. The technical term among business experts is "the concentration and coordination of routine and related processes." At a small roundhouse a handy man may be machinist, boilermaker, and car repairer. In a large shop for obvious reasons the boilermakers and machinists are segregated. So, in an office, stenographers may be pooled, accountants segregated, and clerks concentrated for the general good of the office work rather than for the fancied importance of a particular phase. The key to success in the unit system is a properly handled file room. It is given preferred attention and whatever force is necessary. When all the clerks of the division are pooled no difficulty is experienced in finding sufficient to handle the file room. Williams' Railroad Classification is being installed with a view to uniform filing over the Harri-man lines.

As a general proposition officials at headquarters should not exchange written communications among themselves. Superintendents must apply this principle without hard and fast rules. For example, the superintendent of a heavy division being on the line some 200 miles from headquarters very properly addressed a joint letter to each of his ten assistants, calling their attention to a wreck he had just picked up and as the lesson to be learned enjoining upon them a vigilant enforcement of certain rules. It has been found possible to reduce the correspondence of divisions reorganized from thirty to fifty per cent. Even with reduced clerical forces night and Sunday office work have been eliminated. The great reduction is made possible by the constant presence of the senior assistant who is alert to discourage the letter-writing propensities of headquarters. It is expected

that when all of the units under the Chicago office are reorganized there will be a net saving of at least 500,000 letters per year. Every letter costs a few cents to produce. Its retarding effect upon administration cannot be measured in money. Its dwarfing influence upon the individual initiative of the man below is likewise indeterminate. It is expected also that when the reorganization is completed numerous routine reports can be dispensed with.

It is not expected that a mere change of title or an assignment by a superintendent will make a man a skilled mechanic or an experienced engineer. For technical questions arising on a division the most expert knowledge available will continue to be utilized. It is claimed, however, that as the average division official has been in the service at least ten or fifteen years, he cannot fail to have acquired some familiarity with the requirements of the various branches of the work. The old trainmaster may, as third trick dispatcher, have ordered an engine taken down and towed in without awakening the master mechanic. By so much more should he with wider experience be able to say whether or not the company's interests are being best observed in the handling of a locomotive that may happen to come under his notice. The mechanical assistant cannot be everywhere, and any help that his fellow officials can render the company should receive. Conflict of authority is avoided by the common sense and courtesy of the assistants, and by the attention of the superintendent. Nothing makes men so conservative as responsibility. It is claimed that the superintendent on the ground is better able to decide these questions intelligently than is a hard and fast code formulated by a man behind a distant desk. What is construction today will be maintenance tomorrow. What is motive power at the turn-table becomes transportation at the switch.

Each official continues responsible for his branch of the work until otherwise indicated by the superintendent. The maintenance assistant is not allowed to

plead transportation duties as an excuse for defective track. With him track must come first. When the train stops he cannot inspect track until it resumes. Meantime he may be able to minimize the delay by seeing that employees perform their duties promptly. He is not allowed, except for insubordination, to discharge employees on another assistant's payroll. He is expected, however, tactfully and politely but forcefully, to insist that the rules be obeyed. The faithful old employees need only encouragement to perform their duties well. The young and inexperienced require constant supervision and instruction. Due to its great extent of territory a railway exercises less control over its employees than any other line of organized effort. The safety of lives and property demands the greatest possible intelligent supervision.

Adaptability to changed conditions is largely a matter of temperament. Among his intimates one can usually predict in advance what position a particular person will take on a question of politics, religion or organization. Some men believe in an early convergence of authority, in wide latitude of discretion. Others believe that the best results are obtained by postponing decisions until the highest possible authority is reached. On important questions there are usually two schools of opinion. Nearly every civilized country has two great political parties. On the railways of America there will always be diversity of opinions and practices as to the organization of forces. The executive officers of the Harriman lines have felt that the individual will be broadened and the service correspondingly improved by the introduction of the elastic methods herein outlined. While many are enthusiastic, not all of the persons affected are convinced. It is to the credit of the latter that in spite of honest doubts all have contributed more or less to the success of the scheme. The work is being kept on a high plane, guided by those exalted ideals of duty: freedom from personalities; and the good of the service.



## CHAPTER III.

### RAILROAD ADMINISTRATION.

- § 1. Executive Department.
- § 2. Legal Department.
- § 3. Financial Department.
- § 4. Purchasing Department.
- § 5. Engineering Department.
- § 6. Mechanical Department.
- § 7. Operating Department.
- § 8. Traffic Department.
- § 9. Railway Statistics.



## CHAPTER III.

### RAILROAD ADMINISTRATION.

#### § 1. Executive Department.

The varying situations and conditions which confront the different railways of the United States cause whatever general system of organization they may adopt to be in its practical detail, and sometimes in the main, modified to meet the necessities of the individual line or system. To attempt, therefore, to describe in detail the workings of a departmental or divisional organization as a standard of railway administration and operation would be largely a waste of time and energy. That the divisional method prevails on most American railway systems is as far as we may go in describing the general systems of railway organization now in effect. In the abstract, the functions of railway administration are the same. Hence, in their analysis our descriptions must be considered purely functional.

To the eyes of the layman the business of transportation, as conducted by a railroad, divides itself into two distinct departments—the traffic department, which procures the traffic, and the operating department, which moves the traffic, but this by no means includes the various administrative functions which are necessary to give effect to the traffic and operating departments.

Railway administration (including operation) is divisible into seven distinct branches, viz.:

- (1) Traffic Department.
- (2) Operating Department.
- (3) Engineering Department.
- (4) Mechanical Department.
- (5) Financial Department.
- (6) Law Department.
- (7) Purchasing Department.

While the board of directors and the president of a railway system are commonly spoken of as constituting the executive department, in reality the executive administration may not be properly spoken of as a department since it is comprehensive of the administration and operation of the entire railway corporation and railway property.

The president of a railroad is the chief executive officer through whom the intentions and directions of the stockholders are carried into effect under direct authority of the board of directors. Through his staff officers, who act in the capacity of an advisory board, and the line officers in actual charge of the working organization, he carries such wishes and directions into actual effect. One of the largest of American railway systems defines the duties of its president in the following by-law: "The president shall have general supervision and direction of all the departments of the company's service and be assisted in the performance of his executive duties by the vice-presidents. He shall have charge of the seal of the company."

The president of a modern railway company is an administrative officer of an entirely different type from the railway president of a decade ago. The railways of foreign countries have no administrative officer that exactly corresponds with him. In England the railway corporation is without a president, the chief executive functions being performed by the chairman of the board of directors. From an officer of nominal responsibility, performing the

dignified office of chairman of the board of directors and confining his activities solely to the fiscal interests of the company, the railway president in recent years has developed into the chief managing officer of the railway. From an academic supervision and direction of the affairs of the company, he has developed into an executive who must possess many of the elements of statesmanship, and be endowed in an eminent degree with talent, fidelity, singleness of purpose, sobriety of judgment, knowledge of men and familiarity with the laws of the country and the general drift of affairs, to the end that he may effect such results as will be most conducive to the prosperity of the railway property during and after his tenure of office. He occupies in an economic sense a semi-public position for upon the policy of his railway administration, the trade of the territory which his line traverses frequently depends.

While it is incumbent upon a railway president to keep himself so informed as to the workings of his property that he may at all times deal effectively with it in his administrative directions, to concern himself with the routine details of its individual operations would be to pervert both the dignity and effectiveness of his office and to shirk its larger responsibilities. The supreme obligation assumed by a railway president is the placing of the organization on a permanent basis, and providing for every contingency involving the disposition of men, their ability, strength and weaknesses.

Thus, the prosperity of the railway property depends very largely upon its president and his administrative policies. His supervision of the workings of the railway must be performed with the keen perception of a judge, reaching unprejudiced convictions to which he must give effect with all the strength of an unimpaired courage.

The president of an important railway should not devote

his energies to the mastering of routine detail. He should leave the details to the subordinates who can attend to them and devote himself to the tasks his subordinate cannot perform. The imperative duty resting upon the president is to appoint as the heads of the respective departments of the railway, men who are trained and competent efficiently to transact their departmental detail and leave the president free to carry on a successful executive administration.

John B. Jervis, one of the earliest of railroad writers, laid much stress upon this important office of the railway president, when he said:

His ability as a business man will be amply proved in the discharge of this duty. If he proves himself a discreet man, with an eye single to the prosperity of the institution, having that frank and high minded sense of duty, he will gather around him a class of men that will produce order, regularity and efficiency through every department of the business of the institution. He may not succeed fully in the outset of his engagement, but he will ultimately produce the most favorable management.

Instances have happened where railway chief executives have made the mistake of not abstaining from burdening themselves with detail to the extent that their usefulness became impaired and ultimately destroyed. Such an executive, no matter how zealous his efforts, loses his reflective powers, his ability to control and his ability to act dispassionately. He becomes petty in his conceptions and unable to consummate results through others, sometimes resulting in an actual misconception of his office.

As a result of the realization of the scope of the enormous activities of a railway president, the larger railway systems of the United States support their presidents with

active and expert assistants designated as assistants to the president.

Not long ago the death of a great railway president revealed the fact that he had sacrificed his life in an endeavor to master the interdepartmental details of his system. His successor, that he might not fall into the same error, made his first act upon entry into office the appointment of six carefully selected assistants to become media through which he would always be in effective touch with the respective branches of the railroad.

## § 2. Legal Department.

The legal department of an American railway system is one of its most important administrative branches. The legal interests of the railroad involve momentous consequences and the knowledge and experience of the legal department must be such as to enable it, without notice, to deal intelligently therewith. Where the law is not known or is not entirely plain, the general counsel in charge of the legal department is the advisor of his associates in management. He passes upon legal documents, determines the course of the company in matters of legal import and resorts to and defends recourse to the law for and against the corporation.

The legal requirements of a railway have constituted a distinct department of the law and railway counsel must possess such a diversity of legal talent and special knowledge as is involved in the legal problems of the railway. In short, the legal department erects and preserves the great structure of vested rights on which the railway corporation is founded, operated and developed.

A railway legal department usually reflects in the nature of organization the character of the man in charge of it. In the larger systems, the legal duties are

divided between two or more general heads, but the jurisdiction of the general counsel of a railroad is not, however, always uniform. In the case of some roads, his duties are extended to the supervision over all matters requiring knowledge of the law and nothing of a legal nature may be done or omitted except under his direction. On other lines, legal matters are divided among different counsel, each of the same relative official status.

In some instances, the supreme head of the legal department is a vice-president, who, of course, is a lawyer, but generally the general counsel is in charge of the law department organization. Under his direction the legal department is organized to meet the many exigencies which arise in the business of railway administration and a permanent staff of attorneys is appointed who are especially adapted to the various branches of legal practice which the department encounters.

The legal organization ordinarily consists of a general solicitor, assistant general solicitors, general attorneys, assistant general attorneys, general claims attorneys, and other counsel, including a territorial organization consisting of divisional and local attorneys at the principal points on the system.

All important contracts, agreements, leases, mortgages, charters and other documents are referred to the law department where their legal propriety is passed upon. The department also has charge of all claims for losses and damages to property entrusted to the company for transportation, suits against the company for damages to property by fire or otherwise; claims and suits for damages to persons killed or injured and the incidental expenses attached thereto. Other sources of damages to property give rise to claims such as damages growing out of railroad crossings, injuries to lands overflowed by reason of

the railway's embankment or road bed impeding streams, blocking culverts, etc., damages to crops caused by construction work, and damages to property growing out of the removal or repair of buildings caused by the proximity of the railway or by extended improvements. Claims growing out of the condemnation of rights of way, depot and yard grounds, etc., are all under the charge of the legal department. While claims of the classes enumerated are frequently settled by departments other than the legal department, the latter has charge of the interests of the railway company in all suits or threatened suits to which the railway is or may be a party.

The legal department also looks after legislative matters and in conjunction with the traffic department represents the railway company in the inquisitorial proceedings and rate investigations instituted and conducted by state and national regulating authorities.

### § 3. Financial Department.

The financial department occupies an important and uniquely organized position in the railway organization machinery. At first glance, this department seems to be divided into three sub-departments,—treasurer, auditor and comptroller. In reality, however, such is not the case. The two primary financial officers are the treasurer and auditor, while the comptroller co-ordinates the work of their respective offices. Neither the treasurer nor the auditor have anything to do with the execution of new financing, which is entirely under the authority and control of the president and board of directors, subject, of course, to the ultimate approval of the stockholders. The treasurer is the custodian of company funds and the auditor the keeper and collector of accounts.

The official status of the comptroller in different railway

organizations is not uniform. Sometimes he reports to a different vice-president than does the treasurer, and again the comptroller is but another name for the auditor. In still other instances the work of co-ordination between the accounting and treasury departments, which the comptroller (when such officer exists) performs is consummated in the office of a vice-president and the title of comptroller not used. On some systems the comptroller is a superior officer to the treasurer.

Such duties as the protection of funds, safeguarding the transmission of funds, supervising the audit of tickets, waybills and station accounts, are under the control of the comptroller.

The treasurer is the custodian of the funds of the railway and frequently acts as an advisor to the president and board of directors. He is charged with the proper disbursement of moneys, including payrolls, and is held responsible for the proper issuance of stocks, bonds, notes, debentures, etc., as well as for all securities in the treasury. He is the officer charged with the knowledge when existing obligations, bonds, notes, etc., fall due.

He is also charged with the proper banking and with banking procedure in connection with the bankable funds of the railway system.

The departmental staff of the treasurer includes a cashier, assistant cashiers, paymaster, assistant paymasters, and such clerks as may be required. A high standard of integrity and honesty is required of employees in the treasury department and it is the general rule that the treasurer's staff, including the paymaster and his employees, must give bonds which are renewed at stated intervals. The general cashier is the superior in his official status to the paymaster.

In some organizations the practice is in effect of having

checks authenticated by both the treasurer and the auditor and while cashiers or other designated employees are permitted to sign checks the countersignature of the treasurer is generally required.

The auditor is the accounting officer of the railway company. While not theoretically charged with the collection of the funds of the railway, he in practice collects and records receipts from a multitude of sources. He has undisputed control over the accounts and audits not only the accounts of receipts and disbursements but also the accounts of the management.

This department employs a large office force whose work is laborious, and in connection with which are now being employed many mechanical devices of recent invention intended to increase the rapidity and accuracy of results. Besides the office force in the accounting department, a large corps of traveling auditors is constantly employed on the road for the purpose of inspecting and auditing the accounts of station agents. These traveling auditors take a trial balance from the agents' records and where discrepancies occur require specific explanation thereof by the station agent. It is the general rule of railways to require station agents to make daily transmissions of their cash in excess of a certain specified sum to the auditing department and the mistakes and more unfortunate situations involved in auditing station agents' accounts are being reduced to a minimum.

In addition to the fiscal nature of the work of the auditing department, statistical bureaus are being maintained by many of the large systems, for so complex have railway systems become and so far-reaching are the ramifications of their machinery that without a statistical analysis of operations, the system would quickly revert to a managerial and financial chaos.

Through statistical information compiled and furnished in this department, a successful control of the giant railroad organization is made possible. The importance of this department was early recognized by the regulating authority and the Interstate Commerce Commission now prescribes and requires compliance with a classification of accounts of common carriers to the end that their vital statistics may be constantly before the government in its supervision of railway operations.

The ultimate result that the accounting department strives to accomplish is a homogeneous system of accounts, through which may be achieved a rapid and accurate audit of accounts of receiving and disbursing agents as well as all accounts of the railroad and an accurate analysis made of the vital forces which control the railroad's business.

See also, this volume, Chap. III, § 9, "Railway Statistics," post.

#### § 4. Purchasing Department.

The purchasing department is charged with the duty of economically buying and distributing to points of consumption along the line the vast quantities of supplies and materials consumed in the operation, maintenance, and repair of the railway system.

In the larger railway organization this department is a highly organized intelligence bureau, constantly in touch with production cost, market prices, qualities and available quantities of commodities consumed by railroads, and is operated under an elaborate system for purchasing by bids and by contracts.

The purchasing department is in charge of a purchasing agent, a man generally chosen because of his long business experience, known ability and proven integrity.

### § 5. Engineering Department.

The civil engineering department, in charge of a chief engineer, is responsible for the proper consummation of new construction work or important extensions of the railway. The chief engineer's position varies in the organizations of different railways, and in turn varies in the organization of a single railroad according to the nature and importance of the current construction or extension work. In the case of important improvements, such as the recent construction of the Pennsylvania Lines New York Terminal, the civil engineer in charge was a vice-president, but on systems where no very important extensions or new construction work is being carried on, the chief engineer is ordinarily a staff officer reporting to a vice-president or the general manager.

In the pioneer railroad days, the chief engineer was superior to the chief operating officer, but their status has been reversed and the chief engineer only by stress of extraordinary circumstances ever gains supremacy over the operating authority.

Different methods are pursued in the organization of the engineering department. Usually, the chief engineer has several assistant engineers on his staff and also exercises supervision over signal engineers.

In the case of the Union Pacific Railway the chief engineer instructs division engineers regarding standards, while on the Louisville & Nashville Railway the chief engineer acts as an assistant to the general manager.

The Missouri Pacific employs a consulting engineer in addition to an engineer of construction and a chief engineer of maintenance and way. Other systems employ a bridge engineer, who generally is subordinate to the chief engineer.

The importance of the civil engineering work in connec-

tion with railroad construction, maintenance and operation must not be underestimated. Railroad engineering has reached a high state of scientific development and in the accuracy of mathematical and mechanical computation and adjustment is only exceeded in attainment by the science of astronomy. Railroad civil engineers have won stupendous achievements in harnessing the forces of nature and carrying the steel highways of commerce across apparently insurmountable barriers of rivers and mountains.

### § 6. Mechanical Department.

While the construction and maintenance of railway equipment assume such proportions in railway administration as to require a mechanical department devoted thereto the mechanical department is to all intents and purposes a part of the operating department. The officials in charge of the mechanical department are under the direct authority of the operating staff.

The work of this department is of the highest import in the operation of the railroad. The shops, machinery, and employees connected therewith constitute a department which is divided into two branches in order effectively to conform with the required standards of construction of equipment. Railway equipment is divided into locomotives and cars and in the mechanical department the mechanical service is likewise distributed under two distinct heads. The title commonly conferred upon the one in charge of locomotives is the superintendent of motive power and machinery or the master mechanic. The officer in charge of cars is generally known as the superintendent of rolling stock.

The mechanical departments of the largest American railway systems are organized along scientific lines with a view of developing and maintaining a maximum degree of

mechanical efficiency in the construction and maintenance of the railway equipment. Originally, the officials in the mechanical department were merely machinists and carpenters, but the progress in the mechanical development of railway equipment, particularly in the last decade, has made it necessary to put this department in charge of executives and managers possessing a high order of railway knowledge and mechanical engineering skill as well as technical and scientific familiarity in the use of metals and other materials employed in supplying railway equipment.

The demands upon the mechanical department are varied and require great versatility of talent and mechanical experience. The department must be alert and constantly alive to the constructive needs of the service, construction and adequate maintenance of shops and machinery at proper locations, build up an organization of efficient, trained mechanics and govern the efforts of the vast number of laborers employed in and about the shops. Enormous purchases of materials and supplies used in the construction and repair of equipment emanate from this department and the economic conduct of the department is vital to the railway.

A carefully organized system is employed to meet the needs of the service and the concentration of mechanical ability is constantly sought after. The method of employment is such that each man does that which he is best fitted to do and the system of foremanship generally in effect is so designed as to keep a constant and accurate check on both the quality and quantity of work performed by the mechanics.

In summary, the mechanical department involves one of the most intricate and technical business problems of railway administration. Not only must this department give consideration to the precise amount of power required to

operate the railway but it must design and furnish such equipment at the least cost and with the greatest conservation of revenue. Thus, everything produced or used in the mechanical department must be in proportional subordination to what is best for the general interest of the entire railway.

It has been stated that the annual cost of repairs, upkeep, and housing of a locomotive equals its original cost of construction. Each piece and part that goes to make up this wonderful and intricate piece of machinery must be subjected to the most careful and accurate tests before being made a part of the locomotive. Metals and mechanisms must conform to the standards that long experience has proven are imperative. Not only are specifications prepared by the mechanical department for the casting of metals used in the construction of locomotive parts, but inspectors are sent to the foundries and iron and steel works to inspect and supervise their casting and making.

### § 7. Operating Department.

The operating department may be best described as the force which operates the physical railroad in the performance of transportation. The head of the operating department is a general manager, who in many instances reports to a vice-president in charge of transportation. The most important function of this department is, of course, the control of train movement and those complex operations incident to it. In most railway organizations the civil and mechanical engineering departments are parts of the operating department.

On the Pennsylvania Railroad the general superintendent of motive power reports to the general manager whereas the chief of motive power in direct supervision and control of equipment standards reports to the fifth

vice-president, but the general manager may draw upon him to meet requirements for motive power and rolling stock much in the same manner as an architect is asked to design a building or structure.

According to the manual of one of the largest railway systems in the United States, "the general manager is responsible for the safe and economical management of the roads and is required to report to the chief executive and the board of directors."

The departmental organization of the operating department consists of a general superintendent or superintendents who represent the first actual sub-division of the operation of a railroad into units and subordinate officers such as assistant general superintendents, superintendents of motive power, superintendents of car service, and division superintendents, roadmasters, master mechanics, trainmasters, despatchers, and sometimes division engineers. On some systems the trainmaster, division engineers and master mechanics report direct to the division superintendent.

There are also railway organizations in which the general superintendent is known as the general superintendent of transportation whose assistants are a superintendent of freight transportation and a superintendent of passenger transportation, and in the case of the Pennsylvania Railroad east of Pittsburgh, five additional general superintendents.

The general superintendent, under the direction of the general manager, is charged with the supervision of the movement of all traffic, passenger and freight, and sometimes of car distribution within his territory, or, if there be but one general superintendent, on the entire system.

A very close community of interests exists between the operating and traffic departments and the general superin-

tendent is generally in effect, the representative of the traffic department on the operating staff. He is responsible for the prompt movement of freight cars and the rendering of the best possible transportation service. While this is really an operating function, it is one having a direct bearing upon the activities of the traffic department. Where a separate superintendent of passenger transportation is maintained he performs a similar service with respect to passenger service, and represents as an operating officer, the passenger traffic department in the same manner that the general superintendent or superintendent of freight transportation represents the freight traffic department.

The division superintendent constitutes the next important subdivisional unit in railway operation. He is always on duty, for day or night he must be ready to go to any part of his division and take first executive action in case of trouble, fire, accident, flood or strike. A strong and resourceful sub-executive, the division superintendent must meet the problems of his division no matter what happens. In some systems the division superintendent has authority over the civil, mechanical and engineering forces as well as roadmasters, master mechanics, train despatchers, and station agents. It is only in a purely departmental organization that the division superintendent's duties are confined solely to train movement.

The length of divisions subject to the authority of division superintendents varies. Generally speaking, they average from one hundred to two hundred miles, and while a division superintendent does not have authority over extraordinary matters he is charged with the duty of keeping trains moving throughout his division without instructions from his superiors. He is responsible for the proper maintenance of the roadway and structures, and the eco-

nomical administration of all the company's business on his division. He must prepare and submit for approval by the general manager accurate details and specifications of repairs, betterments, and renewals needed on his division.

The purpose of this volume does not admit of a minute analysis of the working details of the operating department, but its importance must not be underestimated. It represents the dynamic force in the railroad machine, for unless it operates efficiently, unless the railroad performs its function of transportation, it ceases to be a railroad in the sense of a business entity.

In its entirety, the operating department is comprehensive of a proportionately distributed responsibility for the safe and economical operation of the entire railroad.

### **§ 8. Traffic Department.**

The traffic department is the business-getting force in the railway system and since this volume is most prominently devoted elsewhere to a description and analysis of the functions and workings of the traffic department, attention is directed to Chapter IV hereof and subsequent chapters dealing with the traffic department.

### **§ 9. Railway Statistics.**

It has been well said that the operations of a railroad are controlled through its statistics. The difficulty of an efficient control of a railway property as compared with the control of an industrial enterprise is most forcibly emphasized by the difference in the physical nature of the two plants. One is as much a manufacturing enterprise as the other, for while the industrial plant manufactures and sells a physical commodity, the railroad plant manufactures and sells a service. The manufacturing done by the industrial plant is concentrated and entirely performed at one point,

whereas the plant of the railway is distributed over vast physical stretches of country and its service of transportation is constantly moving about over the entire railroad.

In order to keep itself informed regarding the manner in which the business of the railroad is conducted, the directing authority must have a knowledge of variations in units adapted to efficiency purposes. Those charged with responsibility for the safe and economical management of the railroad may not content themselves with mere comparisons of total expenses with total revenues. A great many of the employees of a railroad must do their work without direct supervision and it is only through the establishing of units of results obtained and comparing them with fixed or relative performances that railroad management can be efficiently achieved. Take, for instance, the general manager of a larger railway system. One-half, if not more, of his time is occupied in inspecting the operations of the system and but a negligible quantity of his time is devoted to operating direction. With no other means than the results obtained from his personal inspections, the general manager would be figuratively speaking blindfolded by a heterogeneous mass of detail which it would be physically impossible for him to master. He must seek other means for the control of the property in his charge and the only method adequate to accomplish the desired end is a comparative analysis of the individual operations of the business in conjunction with approved standards. A unit for each operation must be established and rigidly adhered to and these units in their comparative and collective sense must form the measure by which the operations of the property can be standardized and controlled.

It has been said, by a well-known authority, that "statistics are the clinical thermometers of industry," and in no

industry is the force of accurate and promptly developed statistical data more vital than in the railroad business.

The value of railway statistics has long been recognized by American railways and elaborate systems for their production have been installed by the larger railways. Methods of furnishing daily, weekly, and monthly statistical reports are in vogue and the systems for producing such statistics are being perfected more and more each year. Mechanical devices, such as adding and calculating machines, are being added to increase the accuracy and reduce time consumed in producing statistics.

For many years the national government and many of the states have required certain statistical information to be filed annually by each railway subject to the regulating authority. These returns cover the operations of steam railways, their state, interstate, and foreign traffic, and with very few exceptions are comprehensive of their entire business operations. These statistical returns are verified by oath as is required by law and carefully scrutinized by the regulating bodies' experts.

The statistics thus required cover in general the following subjects:

- (1) Classification of railways and mileage.
- (2) Amount of railway capital.
- (3) Condensed income account and disposition of net corporate income.
- (4) Analysis of operating revenues.
- (5) Analysis of operating expense.
- (6) Analysis of income.
- (7) Analysis of deductions from gross corporate income.
- (8) Traffic averages and ratios.
- (9) General balance sheet.

Statistical returns are also required as to the installation and operation of devices and mechanisms designed to promote the safety of persons and property in and connected with transportation in compliance with the requirements of the safety appliance legislation.

## CHAPTER IV.

### TRAFFIC DEPARTMENT.

- § 1. Internal Departmental Organization.
- § 2. Executive Head of the Traffic Department.
- § 3. The Passenger Traffic Department.
- § 4. The Freight Traffic Department.
- § 5. The Freight Traffic Manager.
- § 6. The General Freight Agent.



## CHAPTER IV.

### TRAFFIC DEPARTMENT.

#### § 1. Internal Departmental Organization.

In its performance of the transportation function the railroad deals directly with the public through its traffic department, the primary purpose of which is to secure the traffic and the fundamental object to arrange for its profitable movement.

Railway traffic is divisible into four groups—persons, general freight, express and mail. The transportation of mail and express matter is under special contracts, and does not enter into the more important work of the traffic department, which consists of the procuring of the traffic and the fixing of proper charges for its carriage.

The economic perspective of the railway traffic department is extremely broad, for in the procurement of the greatest quantity of passengers and tonnage, the increase and distribution of population and the development of the resources of the country tributary to the railroad are incidents of vital importance. Thus, in its furnishing of commercial vitality to the railroad, the traffic department discharges one of the most important responsibilities of railroad administration. In order to increase the demand for the service of the railroad, the traffic department must be so organized as to constitute an alert and efficient force for the stimulation and generation of commercial intercourse, and one which is alive to the needs of the railway

property for adequate revenues. It must be a department the working forces of which are cognizant of the conditions of every industry and commercial business, constantly in touch with market prices and conditions, and capable of effectively stimulating the production and consumption of the articles of commerce.

In its departmental organization, the railway traffic department is of necessity a complex machine, for not alone must it be responsible for the total volume of business and its constituent parts, but it must be possessed with a thoroughly practical acquaintance with the railway property and its physical capacities and revenue needs.

The units of service must be so harmonized with the traffic department detail as to give effectiveness to the procurement and carriage of the traffic as a whole.

The duties of the traffic department are many and complex in their detail. To this department falls the responsibility for the conditions under which business is done, proper classification of traffic, the regulation of those who handle traffic at stations, trains and elsewhere in the course of its transportation, in fixing of adequate rates of compensation for the service, the conditions of carriage, routing, transfer, storage and handling, the kind of equipment required by the traffic, the standards of lading and loading, handling, loading and unloading, the primary course of claims for overcharges, loss and damage, and effective working arrangements to govern interline traffic handled in conjunction with other carriers. To all of this detail must be added the formulistic routine by which the actual receipt, carriage and delivery of traffic is accomplished. The adjustments necessary to give efficient effect to this variety of details are minute and constant, for that which was done yesterday, may require revision today, or be entirely abandoned tomorrow. How manifest it is that

the machinery of a department charged with these responsibilities must of necessity be complex in its scope and intricate in its detail.

Of late years the railway traffic department has taken on a new significance in its direct relation to numerous transportation affairs subject to government regulation. While the legal department has charge of the procedure in government investigations and hearings, it falls to the lot of the traffic department to confer with the legal officials, government officers, and commission representatives, furnish data, information and statistics, and to the best of its opportunities differentiate between the practical and impractical in railroad regulation. So far-reaching have these government investigations become and so searching their inquisitorial extent that the traffic department has been obliged to develop special experts with long experience in traffic affairs in order to cope with their requirements.

## **§ 2. Executive Head of the Traffic Department.**

The internal departmental organizations of railway traffic departments vary widely in detail but are more or less uniform in general principles. The smaller the railroad the less intricate the internal organization of its traffic department. In the larger systems the traffic department is an elaborately organized branch of the administrative machinery.

Three general plans are followed in establishing the executive head of the traffic department, the adoption of each method being dependent upon the size of the railway system to be served. Among the larger systems the executive head of the organization is centered upon a vice president in charge of traffic. In other instances, a passenger traffic manager and a freight traffic manager

head the respective divisions of the traffic department—the passenger traffic department and the freight traffic department. Still other lines appoint a general traffic manager whose authority is inclusive of both the passenger traffic and the freight traffic divisions of the department, while the smaller railway systems resort to a general passenger agent and a general freight agent to head the passenger and freight departments respectively. What are commonly known as “short line” railroads, (less than 200 miles in length), generally combine the passenger and freight divisions under a general freight and passenger agent.

The following comparison of the passenger traffic department organization of the Pennsylvania Railroad Company in 1916, with the similar organization of the Southern Pacific Company in 1916, forcibly illustrates these different organization methods:

**Passenger Traffic Organization of the Pennsylvania  
Railroad Company, 1916.**

Vice President in charge of traffic.

Traffic Manager.

Passenger Traffic Manager.

General Passenger Agent. (In charge of through traffic.)

Assistant General Passenger Agent. (In charge of through traffic.)

District Passenger Agents.

District Passenger Solicitors.

European Agents.

General Passenger Agent. (In charge of local traffic.)

Assistant General Passenger Agent. (In charge of local traffic.)

Division Passenger Agents.

New England Passenger Agent (Boston).

Canadian Passenger Agent (Toronto).

General Baggage Agent.

Assistant General Baggage Agent.

**Passenger Traffic Organization of the Southern Pacific  
Company, 1916.**

Director of Traffic. (Office in New York.)

Assistant Director of Traffic. (Office in New York.)

Vice President in charge of traffic (San Francisco).

Passenger Traffic Manager (San Francisco).

General Passenger Agent (San Francisco).

Assistant General Passenger Agent (San Francisco).

Assistant General Passenger Agent (San Francisco).

Assistant General Passenger Agent (San Francisco).

General Passenger Agent, lines in Oregon (Portland).

Assistant General Passenger Agent, lines in Oregon  
(Portland).

General Passenger Agent, lines east of Sparks, Nev.  
(Los Angeles, Cal.).

Assistant General Passenger Agent, lines east of  
Sparks, Nev. (Nelson, Ariz.).

Assistant General Passenger Agent, lines east of  
Sparks, Nev. (Reno, Nev.).

General Passenger Agent, Atlantic Steamship Lines  
(New York, New Orleans, and Galveston), (New  
York).

General Passenger Agent, Atlantic Steamship Lines  
(New Orleans and Havana), (New Orleans).

General Baggage Agent (San Francisco).

Mail Traffic Manager.

The vice president in charge of traffic is the chief executive officer of the traffic department. It is well at this

point, since we are to now proceed with an analysis of the functions and details of the railway traffic department, to give brief consideration to the real significance attaching to the office of a vice president and the general scheme of railway administration.

The larger railways have several vice presidents, one in charge of operation and maintenance, one in charge of traffic, one in charge of the legal department, one in charge of the treasury and accounting department, and sometimes one in charge of the department devoted to purchasing, real estate, taxes, and pensions. It is obviously impossible for the president of a large railroad to be personally responsible for the conduct of all of these various departments, hence, it has become the custom for the president or his board of directors to appoint other competent men to represent and act for the president at the head of these different branches of the railroad.

These vice presidents are all equal in rank, although they are sometimes designated in the order of their seniority. It frequently happens that when a president of a road dies or retires these vice presidents are drawn on for his successor. In some instances none of them will be the one selected. A new president will be appointed from another road, perhaps on account of some particular ability which the directors believe none of the vice presidents possesses. More often, however, one of the vice presidents is chosen and which one depends largely upon his training. For many years the Pennsylvania Railroad has selected its senior vice president as its next president, regardless of what department he came from. Other roads usually elect an operating or an engineering man to its presidency. The presidents of ten of the leading railroads of the country are divided as follows: Four are operating men, two

are engineers, two are traffic men, one is a lawyer, and the other has never been anything but a railroad president.

From this, it is obvious that the traffic vice presidents who are chosen to head a railroad are not usually in the majority, and this fact usually places greater responsibility upon the vice president in charge of traffic, for the president, if he is an operating man or an engineer, is naturally more familiar with the problems of those departments, having just graduated from them, than he is with the problems of the traffic department. While the traffic official must possess an extensive knowledge of the operating department to be an efficient traffic man, it is not at all necessary for an operating man to be familiar with the traffic department and so, it often happens, the vice president in charge of traffic, on a road whose president is an operating man, has unlimited power over and responsibility for the affairs of his department and all his president will require of him is that he "deliver the goods" so to speak; he will not inquire how he does it, while a president who graduated from the traffic department would watch the methods, as well as the results, of his successor in office.

The vice president in charge of traffic, therefore, must, on most roads, be a man of extensive knowledge, great executive ability, broad judgment and a keen perception of the needs of his road in respect to traffic, and the means whereby they may be met. His knowledge will come mostly from his experience, for he will have risen from the ranks in almost every case. As the vice president combines the supervision of both the freight and passenger departments, he may be a product of either department, but his training in one will not render him unfit to direct the other if his ability is what it should be to perform,

successfully, the duties of a vice president. Some very able vice presidents have spent their entire traffic career in the passenger department only to become most efficient freight men upon being promoted to the vice presidency.

An example of this is the vice president of a large western road, now retired. This gentleman started as a clerk with the Santa Fe, worked as chief clerk and traveling passenger agent for ten years. He then went to the line with which he completed his career as general southwestern passenger agent, where he served eight years. He was promoted to general passenger agent, where he served thirteen years, then to passenger traffic manager for seven years, and finally vice president in charge of traffic, where he served five years before retiring.

Another example of the career of a vice president also of a western railroad is unusual in that the man in question had experience in both passenger and freight departments, as well as a short career in the operating service. He started as a telegraph operator, then a station cashier, traveling freight agent, division freight and passenger agent, and finally after thirteen years became assistant general passenger agent. After a time, he evidently decided to learn the freight end and took several steps backward, becoming commercial agent. After ten years he became assistant general freight agent, then general freight agent, freight traffic manager and finally vice president. No doubt this official knows both freight and passenger departments equally well.

There are of course, examples where men can step right into a high office and become proficient in all its details in a short space of time, but as a rule these instances are rare, and the most valuable officer is he who has come up from the ranks, and who knows all the successive stages through which he has passed. It is a remarkable fact that of the

five vice presidents of the Pennsylvania Lines west of Pittsburgh, every one started at the foot of the ladder. The first vice president was a ticket sorter; the second and third clerks; while the fourth and fifth were messengers at the beginning of their career.

The vice president, will, therefore, have an extensive knowledge of all the different positions under him. As he is responsible for his department he will have to appoint men to the various positions as they become vacant. Of course, he will not appoint every officer; he will rely upon the opinion of his subordinates to a great extent, but from his knowledge and experience he will be easily able to tell whether the right man has been selected.

He will select these men, particularly those directly under him, for their capability, experience and judgment, and he will rely on them, as his president relies on him, to fulfill their tasks in a satisfactory manner. He will not be continually doing work that they ought to and can do. He has put them in those positions to do that work, and he trusts them to do it. If he does not, if he is continually suggesting and taking their work out of their hands, these subordinates will soon learn to leave all the work they can to him.

He will be a staunch believer in the Golden Rule. He will adopt the attitude towards his subordinates that he would have his superior officer adopt towards him. He will not tolerate any petty gossip to reach his ears, or complaints from one official of another. He will make all understand that he is the sole judge of the competency of each of his appointees to fill their allotted positions.

Finally, he will keep away from details. He wants general results; not specific instances. He doesn't care whether John Smith shipped a car today and two cars last year, but he does care that his freight or passenger revenue

as a whole is showing decreases, and he will look to his freight or passenger traffic manager not only to explain the reason for the decreases, but to remedy them, if they can be remedied.

The vice president, as well as the traffic manager, must spend part of his time in conferences. He will be a member of the executive committee of the traffic association of which his line is a member. This committee will not take up details of rates, except in cases where a large and important change is to be made, such as a general advance in rates. This committee will consider as a rule only questions of policy, or relations of the whole body of rates applying from their territory as compared with those in other sections of the country. They will review the whole field with an eye to obtaining any advantage there may be for their territory.

So the vice president, outside of his committee work, will look upon the whole traffic situation as it affects his line, and will determine what policy his line will adopt which will be of the greatest benefit to it. Having decided on this policy, he will so instruct his traffic managers that they may in considering specific rates, be guided by this policy in their action on them. It may be that a policy may be necessary for the sake of other lines which may not be necessary for his own, but the vice president will hesitate to stand out against the action of all the other lines, if this course would mean a disruption of the entire rate fabric and create conditions that, while of benefit in the beginning, would, in the end, be a detriment to his own line.

As a large part of any railroad's business is handled in connection with other lines, it is of great importance that the relations between those lines should be of the friendliest. This is one of the most important duties of the vice

president. He will not concern himself with the rates or divisions or other details of his line's relations with these other lines; but he will be particularly concerned with the amount of freight interchanged and how to increase it. A large volume of freight is not fully routed, and when one line has the opportunity to favor or to disregard another line on a large quantity of business, it is of the utmost importance to be in the favored class. Instances of this kind are many, and whenever a large shipment or a large quantity of tonnage is to be routed the vice president will usually be the one to decide whether he will divide it among several lines or will give it all to one line. So to obtain favors of this kind the vice president must not only be on the friendliest terms with the vice presidents of his connections, but must be prepared to give favors for those he receives.

This giving of favors, particularly by a large line to a small line, consists in the interchange of passes. The large line's passes will be most useful and largely used by the officials of the small line, while the passes of the small line will of no consequence to the officers of the large line. Every year in November or December, every line submits to the other lines lists of the officers of their company who desire to be favored with annual passes over the lines of the other companies. Now, although the law permits common carriers to exchange passes among themselves, it does not compel them to do so unless they desire to, and the basis of this desire is often the traffic that has been given or is expected to be given in return. These passes are ordinarily issued by the president of each road, but lists of the roads asking for them are compiled and submitted to the traffic department for their recommendation. This will be given or withheld with regard to the importance of the traffic of the road in question. If the road is

one which connects with no other road, or which is forced to give business under contract or for some other reason, the courtesy of passes may be refused, knowing that its tonnage cannot be taken away.

As the vice president is not tied down to any specific duty like the other officers of his department, he can usually do a good deal of traveling. He will make periodic trips over the line, will meet his outside agents at various points, will talk over conditions in their territory with them, and will instill into them new ideas and new enthusiasm for their work. At many points along the line it will be possible to call a general meeting of all the agents within reach of that city. These meetings will serve the same purpose as the general meetings held by the general freight agent, except that the agents will look upon them less as a duty than a pleasure and a compliment, owing to the presence and the interest of their vice president. The vice president, having been once as they are now can comprehend their viewpoint, and can give them many valuable suggestions for increasing their value to their company.

Another function which many vice presidents have is that of being the spokesman for their company. Trained as they are to be convincing, to be clear in statement, and careful as to facts, they make most effective public speakers. The operating man can talk on the technical subject of a locomotive or a box car, but cannot usually talk on a subject of interest to a general audience which is not skilled in technical detail. The traffic man, on the other hand, must know a lot about the general trend of business, of government regulation, and other subjects of interest to a varied audience. And so the vice president in charge of traffic is in demand as a speaker at banquets or public meetings, or for an officer or the president of a

traffic club or other business organization. He will usually respond to these demands as far as his other duties will permit, for he well knows that they keep his company before the public in a favorable light, and it is, after all, a very effective form of advertising, which often brings results in a most unexpected manner.

This period of traveling can also be used as a means to solicitation, for even the vice president is a solicitor. There are many large concerns with whom the vice president will wish to keep in touch. These concerns are located all over his system, and off it, and on these trips he will make it a point to see them. He will usually go higher than the traffic manager, and will probably know the president of the concern intimately. They will dine together, take in a theatre, play golf and discuss business. It may often be necessary for the vice president to make a special trip to see one of the heads of these big concerns about some important matter. Particularly if the concern is located on a siding of his line, the vice president will keep on intimate terms with its head, for he will not want his line to be short-hauled through lack of interest on his part, or through a feeling that, as the concern is on a siding, he can lose none of their business.

These trips, these calls on his customers, will all give the vice president a large insight into the general trend of business of the country. How often it will be noted in the newspaper that "Mr. So-and-So, the vice president of the X. Y. Z. Railroad, has just returned from a trip over his system. He states that he has never found business in better shape; the crops are beginning to move, and his system has suffered no shortage of empty cars to move them. Trade is gradually recovering from the depression of last winter, and with the indication of high prices for

grain, the farmer will buy more freely than in past years, creating increased business in the reverse direction."

Such a report, however, is merely a skeleton of what this man has actually seen or done. He has talked to his agents, heard from them their opinions of things, and has also talked to many shippers, farmers and others, who have told him their side of the story. Perhaps these stories have not agreed in all particulars; the vice president then will have been able of his own experience to pick out the truth, to separate the wheat from the chaff, and to form his own conclusions of the situation.

He will gauge correctly the sentiment of the country, whether the time is opportune to expand his facilities or whether he should prepare for an industrial depression; he will report his conclusions to his president, who will act upon them.

### § 3. The Passenger Traffic Department.

Greater diversity in detail exists in the departmental organization of passenger traffic departments than in freight traffic departments, although what has been said of the freight traffic department organizations applies with equal force to passenger traffic departments, that the underlying principle of the distribution of functions and duties of the departmental forces are the same.

The passenger traffic department is organized to secure the available maximum of passenger traffic, fix the fares therefor, and arrange for the proper transportation service. And since the passenger traffic on the average railroad is annually increasing, absolutely as well as relatively, the larger railway systems in particular have established elaborately organized and definitely proportioned passenger traffic department forces.

In some systems, the transportation of the United States

mails is under the direction of the passenger traffic department, although the supervision and conduct of this traffic is, in every sense, an operating matter. Some lines place the mail service under the general manager; others under the general traffic manager, and in a notable instance in the west, a mail traffic manager is attached to the general traffic department in charge of this branch of the transportation business.

Aside from the assignment of passenger car space to express traffic, the passenger traffic department does not exercise supervision over the transportation of express matter, such affairs being handled by the express companies direct.

The operation of sleeping cars, in most instances leased from the Pullman Company, is in charge of the operating department, which department is also responsible for seeing that the Pullman equipment and accommodation meet the required standards of service.

Dining cars are generally owned by the railway company operating them. Buffet cars leased from the Pullman Company are operated and the service of meals performed by that company. As a matter of railroad custom, the dining car service is considered an operating problem, but different railway systems place the responsibility for its proper operation, sometimes with the passenger traffic department and sometimes with the operating department.

The following excerpt from the "By-Laws and Organization for Conducting the Business of the Pennsylvania Railroad Company" furnishes an accurate survey of the functions and duties involved in the system by which the passenger traffic department of that railway is administered, and is in the main typical, although more elaborate in detail, of the systems employed for the conduct of passenger traffic affairs in a larger railway system:

### Passenger Traffic Manager.

1. The Passenger Traffic Manager shall, under the direction of the Third Vice President, have charge of the Passenger Department.

2. He shall be charged with the duty of making arrangements and rates for the passenger traffic over the lines operated by the Company, and shall make all necessary negotiations and arrangements in relation thereto with other railroad or transportation companies or individuals.

3. All rates and arrangements for the transportation of passengers shall be subject to the approval of the Third Vice President or that of the Passenger Traffic Manager, and notice of the same, as soon as fixed, shall be sent to the Comptroller. He shall furnish the General Manager and General Superintendent of Transportation with copies of all arrangements for passenger transportation when completed.

4. The Passenger Traffic Manager shall be charged with the printing and distribution of all tickets, and of advertising matter relating to passenger traffic.

5. He shall instruct the station agents in commercial matters pertaining to passenger traffic.

6. All amounts due to other companies and individuals in settlement of which Redemption of Ticket Orders are to be issued by the Treasurer, shall be certified to him by the Passenger Traffic Manager, the General Passenger Agent, or one of the Assistant General Passenger Agents.

7. The Passenger Traffic Manager shall nominate to the Third Vice President all subordinate officers in his Department, and shall have authority, with the approval of the Third Vice President, to appoint all necessary employees therein.

8. The Passenger Traffic Manager shall be aided by  
A General Passenger Agent, and  
A General Baggage Agent.

### **General Passenger Agent.**

9. The General Passenger Agent shall act for the Passenger Traffic Manager in his absence, and perform such other duties as may be assigned to him by the Passenger Traffic Manager or the Third Vice President.

10. He shall be aided by two Assistant General Passenger Agents.

### **Assistant General Passenger Agents.**

11. The Assistant General Passenger Agent in charge of local passenger traffic shall perform such duties as may be assigned to him by the General Passenger Agent, or the Passenger Traffic Manager, and shall act for the former in his absence.

12. He shall be aided by Division Ticket Agents.

13. The Assistant General Passenger Agent in charge of through passenger traffic shall perform such duties as may be assigned to him by the General Passenger Agent, or the Passenger Traffic Manager.

14. He shall be aided by District Passenger Agents.

### **General Baggage Agent.**

15. The General Baggage Agent shall, under the direction of the Passenger Traffic Manager, be charged with the arrangements for the receiving, checking, and delivering of baggage, with the making of rates for the transportation of the same, and with the examination of claims for loss thereof or damage thereto.

16. He shall be aided by an Assistant General Baggage Agent.

### **Assistant General Baggage Agent.**

17. The Assistant General Baggage Agent shall perform such duties as may be assigned to him by the

General Baggage Agent or the Passenger Traffic Manager, and shall act for the former in his absence.

### **Division Ticket Agents.**

18. There shall be a Division Ticket Agent of the Eastern Pennsylvania Division, with office at Philadelphia; a Division Ticket Agent of the Western Pennsylvania Division and the Buffalo and Allegheny Valley Division, with office at Pittsburgh; a Division Ticket Agent of the New Jersey Division, with office at Philadelphia; a Division Ticket Agent of the Erie Division, with office at Williamsport; and a Division Ticket Agent of the Buffalo and Allegheny Valley Division, with office at Buffalo.

19. The Division Ticket Agents shall, under the direction of the Assistant General Passenger Agent, in charge of local passenger traffic, have charge of the passenger traffic of their respective Divisions, and shall give special attention to the development and accommodation of local travel, and to this end shall consult with the respective General Superintendents.

### **District Passenger Agents.**

20. There shall be a District Passenger Agent of the Boston District, with office at Boston; a District Passenger Agent of the New York District, with office at New York; a District Passenger Agent of the Philadelphia District, with office at Philadelphia; a District Passenger Agent of the Pittsburgh District, with office at Pittsburgh; a District Passenger Agent of the Buffalo District, with office at Buffalo; a District Passenger Agent of the Oil City District, with office at Pittsburgh; a District Passenger Agent of the Williamsport District, with office at Williamsport; and a District Passenger Agent of the Reading District, with office at Reading.

21. The District Passenger Agents shall, under the direction of the Assistant General Passenger Agent

in charge of through passenger traffic, be charged with the solicitation and development of through passenger business in competition with other lines, and shall perform such other duties as may be assigned to them by him, or the General Passenger Agent, consulting freely with the Superintendents within their districts.

#### **§ 4. The Freight Traffic Department.**

The general functions and activities of the freight traffic department will be found enumerated in subsequent sections relating to executive officials, internal organization, policies and methods involved in the administration of the freight traffic department.

#### **§ 5. The Freight Traffic Manager.**

A railroad, like any other business, lives by its earnings derived from the sale of its product. That product is transportation, and its sale is conducted in more or less the same way that other products are sold. The first thing to be determined when selling thimbles, tables or transportation is the price at which it shall be sold. The price of some commodities varies almost every time a sale is made, such as stocks, grain, cotton and so forth. Other prices are fluctuating within longer periods of time, depending more upon conditions which do not change very rapidly. The prices of groceries, chemicals or dry goods vary from week to week, sometimes from day to day, but are more or less steady and are not often subject to violent increases or decreases.

There is one price though, that practically never changes. Expenses may increase, labor mount higher and higher, but except for some world catastrophe which paralyzes industry, the price of transportation is a fixed one. There is no change from day to day, no different

price to the purchaser of wholesale transportation for a hundred cars, than there is for the retail trade of one car of the same goods, and yet the great transportation market can never cease.

It would seem natural to suppose, after realizing the inflexibility of railroad rates, that the task of being their sponsor was an easy one. The rates once having been fixed by law, it would seem that there was nothing in the world to do but to publish them and apply them until some great and overwhelming industrial change should compel a thorough rearrangement of the whole rate structure. The freight traffic manager of the railroad, being its rate-making power, would, therefore, seem to hold more or less of an honorary position.

There is nothing further from the truth. As a matter of fact, the freight traffic manager is one of the busiest officials of the whole railroad. While it is true that there are very few general advances in rates, there are thousands of rate changes made every year. These rate changes affect not only one rate or one class of rates, but they are as important in their general effect as a large rate revision.

It was once said that the way freight rates were made was to charge "all the traffic would bear." In a sense this is true today of most rates which are established for the first time. Rates as a rule are not based on expense for the reason that it is impossible to figure the cost of handling a ton of any particular commodity. The traffic manager, while he may know, or should know the various units of cost entering into the transportation of certain freight for which he must fix a rate, rarely considers these costs in making the rate. There are other conditions more important.

The first of these conditions is the one quoted above. In other words, "what can the shipper of these goods afford

to pay?" The determination of this question is based upon many factors. The selling price of the article or product in the market to which the rate is to apply; the competition of the same goods or products from other points in the same markets; the liability to damage or loss of the article in question; all these factors are taken into consideration by the freight traffic manager in deciding what is the highest rate the shipper can afford to pay.

The next consideration, as it affects the shipper, is how valuable the business is to the carrier. In other words, how low can the rate be made to be attractive to the shipper, and yet to yield the carrier a profit. This principle is sometimes forced down the carrier's throat by state or federal commissions which have figured out what it costs the carriers, as they suppose, to transport certain goods, and then have set a rate which will allow the railroad a small profit, which often vanishes entirely in actual practice. This principle might be called "all the carrier can stand."

A third consideration in fixing a freight rate is the competition between the carriers. The rate must not be so high that another carrier, bringing the same product from another point of production, may be able to land the goods at the market in question at a lower price than the factory on the line of the railroad which is considering the rate, can meet. The rate must also be made high enough so that all the carriers which could handle the product from the same point of production to the same market, can handle it at a profit.

Other considerations enter into specific rates, but the three given above are the principal ones which the traffic manager must think about.

Finally there is the relation of the rate which is settled upon after considering these questions to the whole rate

structure. This consideration may involve a change in the rate. It may involve a change in the whole rate structure, due to some new principle established by the Interstate Commerce Commission in passing upon the validity of the proposed rate.

It is apparent, therefore, that the freight traffic manager must have broad judgment, wide knowledge and extensive experience. In order to assist him in making his rate decisions correct, the freight traffic manager allies himself to the other freight traffic managers who are engaged in solving the same problems for their own lines.

By far the greatest proportion of railroad freight rates apply between points which more than one line can reach. Of the balance, probably half are rates which, while local to one line, must be made with a definite relationship to other rates. The balance are rates which are affected but little by their relation to other rates, such as rates to branch lines or other rates affecting no one but the particular industry and the carrier making them.

In order then, that these rates which are dependent upon other causes, may be fixed by a consensus of thought of all the carriers affected, there have grown up various traffic associations. These associations are composed of the lines running through certain territory, such as the Trunk Line Association, the Central Freight Association, etc. These associations have various committees composed of the officers of equal rank of all the roads comprising the association. There is, for instance, the executive committee, composed of the vice president in charge of traffic, or the highest traffic official of each line; the traffic managers' committee composed of all the freight traffic managers; the general freight committee and so on. These associations also take care of passenger matters, and in

fact anything affecting the combined interests of the roads which are members of the association.

Before these committees, especially the traffic manager's committee, come all freight matters, or all matters bearing on freight rates, such as special services, allowances and other details. There they are worked over by the combined brains of all of the traffic managers interested. Each will naturally be seeking to obtain the rate which will best fit the conditions of his line, and which will least fit the conditions of his competitors. In striving for these advantages the caliber of the man is shown to the best degree, and though when the rate is finally fixed by the unanimous consent of all, the greatest good feeling exists, while the struggle for advantage is on it is waged bitterly.

These committee meetings are held at regular intervals, ordinarily weekly or bi-weekly, but when pressure of business warrants they are held more frequently, and sometimes are continuous for several days.

The term "through rate" is sometimes used to define any rate between two points which is not a combination of locals. This is not strictly correct, for under such a definition a rate between any two points on the same line would be a through rate. A through rate, in its correct application, is a rate applying between two points which is a single rate, although two or more lines share in the haul. Now when through rates are fixed they are necessarily fixed by agreement of the two or more lines which are a party to them, as well as by agreement of all the lines competing between such points. When such through rates are agreed upon, the next thing to decide is what proportion of the through rate each line shall receive for its haul. As all lines strive to increase their "through" business, it will be evident that these through rates far exceed the number of local rates, and therefore, it is

important that the various lines participating in the through rate receive their proper share of the revenue. Here is more work for the traffic manager with his easy, honorary position! It is not easy work either, this making of divisions. These divisions are made in many ways. Primarily they are based upon the amount of service each line performs, and the division is known as a prorate. Mileage is usually the basis for division, and provision is made for the deduction from the through rate of amounts paid by one or another of the lines for auxiliary services, such as switching, lighterage, etc. Further detail as to divisions will be found in Chapter XI.

And so, the traffic manager must not only sit in conference with his competitors, he must sit in conference with his connections. In fact the life of a traffic manager is just one conference after another.

After the rates are decided upon, and their divisions among the interested carriers agreed to, the rates are published in tariff form and are filed with the Interstate Commerce Commission and with the public, at least thirty days before they can become effective. Within that thirty days, any shipper or body of shippers, or in fact anyone, may file with the commission a protest against such rates as they see fit. The commission may, thereupon, order the rates suspended until they can hold a hearing on them. At this hearing it is the duty of the railroads publishing the rates to defend them, and contrary to the usual workings of justice, they are presumed to be guilty until they have proved themselves innocent by establishing without question the necessity for the rate from every conceivable aspect.

When such a suspension occurs it is the duty of the freight traffic manager and his department to gather the evidence necessary to prove their case. This evidence

cannot be haphazard, it must be full and complete, and it will be necessary to present it in such form that it cannot be controverted. The traffic manager or one of his assistants must attend the meeting, and will probably be put on the witness stand. The proceedings at these hearings are not like the ordinary courts of law. Any shipper's representative, be he lawyer or not, may question the witness, who will be forced to answer each question. It will be evident that a case must be very strong and the evidence in favor of a rate must be so strong and so convincing that it will be impossible for any one of perhaps a dozen shippers to find any flaws in it. Moreover the evidence must be presented by a man who knows the particular situation under discussion by heart, and who can answer any question relative to it without hesitation.

On a small road, one which does not make many changes in rates, except by means of concurrences in the rates made by other carriers, one man can take care of all these rate matters and such other hearings and conferences as may come up, but on a big system it is manifestly impossible for one man to do so. His time would be occupied so entirely with these matters that he would have no opportunity to attend to the other matters connected with the traffic department. The freight traffic manager is the highest official having to do solely with freight, and in addition to his rate-making and rate-adjusting duties he must exercise general supervision over his whole department. He is responsible for the conduct of the general freight department, and for the work of solicitation done by the general freight agent. The general freight agent reports to the freight traffic manager as the division freight agents report to the general freight agent. The traffic manager must have a general view of the trend of traffic on his line, he must be quick to notice large increases or

decreases and know or ascertain the reason for them. He also will be alive to any changes in business conditions affecting particular industries which will have a detrimental effect or a beneficial effect on the tonnage of his line.

In order to accomplish all these things, it is necessary for the freight traffic manager of most lines to have assistants who can carry out part of these duties. These assistant freight traffic managers are not chosen geographically, but with reference to their capabilities in certain directions.

Some roads, for instance, assign an assistant freight traffic manager to take entire charge of solicitation. In this case the general freight department is relieved of this work, and in its stead is usually given some of the detail connected with rate making. This assistant in charge of solicitation will probably do considerable solicitation himself, although it will be rather along the lines of developing new business in large quantities than in soliciting from regular shippers.

Another assistant freight traffic manager may be selected for his ability in matters before the Interstate Commerce Commission. He will be, not necessarily a rate-expert, but an expert in matters of procedure; in knowing how to prepare and present a case in the most convincing way. Whenever a rate is suspended or under investigation, the matter will be referred to this assistant, who will accumulate the data, make himself familiar with the whole subject, and be prepared to go on the stand and submit himself to any kind of an attack without flinching.

Another man may be selected as an assistant for his expertness in matters of operating. He may even be an ex-operating man. He will be familiar with all train

schedules, package car loadings, and all other matters of this character. He will be responsible for the service, and to him will be referred all questions arising over the whole traffic organization which have to do with a question of service. He will usually be entrusted also with questions of embargoes, matters relating to shortage of empty cars at any points on the line, moving freight on special schedules for meeting steamer connections or trains of other roads, measures for the relief of congestion at various points on the line, and in fact all matters connected with service in any way.

Another may be assigned to some special form of traffic, as the assistant general freight agents are often divided. On some roads where there is a large coal tonnage, a coal traffic manager or general coal traffic agent or some similar position may be made. This officer may be subordinate to the freight traffic manager, or he may be equally important and subordinate only to the vice president. He will in either event supervise only the traffic he is in charge of, its rates, rules, service and everything connected with it.

Not so long ago the shipper and the railroad man displayed an attitude of hostility towards each other which was not only unwarranted but unfortunate. Today all that has changed. Each realizes that his existence depends upon the other, and they take every possible opportunity to serve each other in their own interest. It is to the interest of the railroad to avoid rate-suspensions or tiresome and costly litigation about rates. To that end the freight traffic manager endeavors, as far as possible, to secure the shipper's concurrence in a rate before it is made. Very often rates are made to suit the needs of certain shippers, and at their request. Sometimes when a change or a new rate will affect a large body of shippers, it will be impossible to obtain the consent of all of them prior to

publication of the rate. This consent on the part of a majority of them can, however, be obtained, or at least the opinion of the majority of them may be learned by keeping in touch with the shippers through Boards of Trade, Chamber of Commerce or Mercantile Associations.

Perhaps the freight traffic manager himself, or one of his assistants may become a member of these bodies. If so he will attend their meetings, get to know the various members, and become an active force in their membership. He will probably not be permitted to obtain a place on any committee whose duty is the study of transportation problems, but his advice may be sought, and he will give it, freely and impartially. He will also be able through making friendships among the members of these bodies, to obtain for his road many able advocates from the other side of the question. The traffic manager of such associations, if there is one, is usually a large power in the settlement of all rate questions affecting the community which he serves, and if the railroad traffic manager has his confidence and his influence on his side, he will be able to accomplish remarkable results.

Finally, the freight traffic manager is responsible for the whole freight traffic of his line. He endeavors to secure this traffic, first by promulgating favorable rates, and then by inducing shippers to favor his line. He does the first of these things himself, and the other he delegates to his subordinates. It is necessary therefore, for him to employ the best subordinates that he can. His is the sole power of appointment in the freight traffic department, subject to the approval of the vice-president in charge of traffic, and although he will receive recommendations and suggestions from his assistants, his will be the final word. He will surround himself, as far as possible, with the most capable

organization, all working in harmony to achieve the same result—earnings.

### § 6. The General Freight Agent.

The general freight agent is at the head of a large force known as the general freight department. Above him are only two officers, the freight traffic manager and the vice-president in charge of traffic. Of course there may be assistant freight traffic managers, but for all intents and purposes only two men, not counting assistants, are superior officers of the general freight agent.

The general freight agent is, therefore, the pivotal office on which the whole wheel turns. He is the most important traffic officer, in a sense, on the whole system. On a small road, he is the only traffic official of any importance. On these small roads the general freight agent is usually the general passenger agent also, and combines the duties of both officers in one. Where this is the case, he is the supreme officer who has solely to do with traffic. His immediate superior is the vice-president, who is also head of the operating department, or on some roads where there is no vice-president, or where the vice-president confines his activities to operation, the general freight agent reports direct to the president.

On roads of five hundred to one thousand miles in length, or over, the general freight department is distinct and separate from the general passenger department. On roads of over a thousand miles in length, there are often two or more general freight agents having jurisdiction either over different parts of the system, or over different classes of business. There are also usually some assistant general freight agents having the same duties as the two or more general freight agents on the larger systems.

The organization of the general freight department, therefore, depends largely on the length of the line and the amount and variety of its traffic. In considering the general freight department in this section, we will take the average case where there is only one general freight agent and several assistant general freight agents.

The general freight agent, as his title suggests, has general charge of all the freight business of his line. As regards solicitation, he is to the various general agents or division freight agents what they are to their soliciting force. He combines their work into one result, that being the total traffic of his line. These division freight agents are stationed at various important cities along the line, usually at the dividing line between two operating divisions, which are roughly 200 to 300 miles in length, sometimes shorter. These division freight agents secure all the traffic possible from their various divisions under the direction of the general freight agent. At the terminal of the line there are usually larger soliciting offices, as will be further described, in charge either of a general eastern, general western, or an assistant general freight agent. At points which are not on the line but which are large shipping centers, and from which the line receives or expects to receive or desires to receive a large traffic, there are stationed commercial agents, or general agents.

All of these officers report to the general freight agent each week or each month as the case may be, usually each month, the amount of business handled through their various territories or divisions, and such other comments or statistics as may be required. These reports are all compiled in the office of the general freight agent for his perusal and study, as are the reports of the solicitors in the various soliciting offices. These reports to the general freight agent, however, are not as detailed, naturally, as

a solicitor's report. There is, first of all, a statement of the traffic handled during the preceding month, showing the increases and decreases in the various commodities, with full explanations of the reasons for each decrease. There are also, perhaps, reports of the tonnage of various customers, the largest ones only, or ones who have more than one plant on the line, in order that the general freight agent may see how their tonnage is running as a whole. One factory of a concern may be losing, but another is more than making up the decrease. These reports of shippers are also accompanied with an explanatory statement.

There is also a general report covering the month's operations from a solicitation rather than a statistical standpoint; a report which gives the names of new factories moving into the territory covered, or of factories which have moved away for some reason or other, and in the case of new factories a statement of the goods manufactured, the total normal output of the factory and the percentage of the output which the line may expect to obtain. This information will be filed away in card index or other form so that it will be readily available. The general freight agent will therefore know just what the "fixed" business of his line should be, allowing for seasons in this or that business, or depressions in one business which will not affect another. In this way the general freight agent will keep a full mental picture of his whole system before him, he will be able to tell at a glance which business is accountable for the decrease in a certain class of tonnage, and whether that decrease is warranted by some condition peculiar to that industry, whether the decrease is occasioned by general business conditions, or whether the decrease is due to the lack of energy on the part of the soliciting office in whose territory the business

is located. If the last is the case the general freight agent will at once ask for an explanation from the interested division freight agent.

The general freight agent also studies his line. He should know all its operating costs in detail, he will have figured out the profitable and unprofitable business for his line to handle and will know the varying degrees of profitability. He will then direct his whole soliciting force through the heads of the various offices what business to seek, and what to let go. Of course, it will not be possible even for the most capable force to secure all No. 1 business; there must be some poorer business handled anyway, but the capable general freight agent will see that very little of the best business escapes his line. He is well named, for he is indeed the general, directing the attack, not to spread over the entire battle-front, but to the one or two points where the greatest and most profitable victory may be obtained.

He will also call meetings, as the head of the soliciting office does with his men, of all the heads of soliciting offices. It may not be possible to hold a general meeting more than once or twice a year, but whenever they are held they will prove to be a help to all. As each solicitor at his weekly meetings learns from his fellow solicitors new methods of solicitation, new viewpoints on the great game in which he is engaged, so these older, more experienced men will learn new view points of their part in the game as captains of the companies and will find new methods, not only of solicitation but of the directing of solicitation.

It will be quite natural to suppose that all these things cannot be done by one man. No single mind could assimilate statistics, work out problems and direct the attack for a whole railroad, even for one of 500 miles in

length. And so there are the assistant general freight agents. These men, as their title implies, are really assistants, and yet they are in their own sphere, general freight agents themselves. Their duties are divided in several ways. The first way is geographically. One assistant may be at one end of the line, and another at the other. Each has charge, under the supervision of the general freight agent, of half of the line. Each receives from the offices on his half of the line, the statistics and reports mentioned above. He compiles them, studies them, and transmits a skeleton of them to the general freight agent. If the line is a long one there may be more than two of these assistant general freight agents, each having jurisdiction over a certain territory. In some cases, one of these assistants is located at a large city not directly on the line, such as New York or Chicago, which is reached through connections. In any event, each of these assistants will be working on more or less the same kind of problems. Each will be seeking to find the best solution of them, and their results will be all transmitted to the general freight agent. He will then be in a position to study the problem himself, and to decide which of the various solutions is the best, or maybe that none of them is as good as the one he has himself thought out. He will then apply the best solution to the working out of that problem all over the line. In this way several different minds will be all the time concentrated on the same problems and the solution once found will not be applied only to one-half or one-third of the line, but to the whole. A friendly spirit of rivalry will also be formed which will be of incalculable benefit not only to the rival assistant general freight agents, but to the traffic of the whole line.

As the backbone of solicitation is service, so these assistants as well as their chief will keep close account of the

service on their part, or the whole of the line. They will be responsible for the arranging of schedules in connection with the operating department, the arranging for through schedules with connecting lines, and the putting on or taking off of through package cars. They will take careful thought of all suggestions as to service on the part of their subordinates, and will decide upon the practicability of them.

In order to keep closer watch upon this feature, the assistant general freight agents are often divided, not on a geographical basis, but upon the basis of through or local traffic. If such is the case, the assistant in charge of through traffic will receive reports from all over the system from all officers, regardless of location, bearing upon through business, or business moving beyond the termini of his line. The assistant in charge of local traffic will likewise receive reports from all offices having to do with local traffic.

Another way of dividing the assistant general freight agents is to assign them to various kinds of traffic. So there may be an assistant in charge of live-stock, or grain or lumber, or some such commodity where the line makes a specialty of handling such business or has a large tonnage of it.

Corresponding in a sense to this sort of assistant general freight agent is the fast freight line manager. These fast freight lines are composed of two or more lines forming a through route between certain points, and are designated by a special title. Among the best known of these lines are the Star Union Line operating on the Pennsylvania Railroad and the Merchants' Despatch operating on the New York Central. The traffic of such fast freight lines is considered a special entity in itself and is handled by a manager who is jointly appointed by all the railroads

composing the through routes. He works only for business for that line or route, and reports the tonnage and other statistics to all the interested lines. Some of these fast freight lines employ solicitors who solicit only for such lines, as distinct from the solicitors of the interested railroads, but the practice is gradually being discontinued, and the soliciting of business for these fast freight lines is being left more and more to the solicitors of the various lines composing the through route. In this manner much duplication of work is avoided.

The other principal function of the general freight department is its power in the matter of rates. Rates as such are entirely in the hands of the freight traffic manager, except on roads where the general freight agent is the highest traffic official. But where the rates are once made, the general freight agent takes charge of them. His department publishes the tariffs and files them with the Interstate Commerce Commission. This part of the general freight department is usually in charge of an official known as the Chief of Tariff Bureau, although occasionally an assistant general freight agent takes charge of this work.

The Chief of Tariff Bureau has the duty of keeping a complete file of the company's tariffs, not only those in effect at the moment, but those which have been in effect in past years, in order that the proper rates applying at any time may be obtained on short notice. He also keeps a complete file of all tariffs issued by other carriers in which his road concurs, that is, in which his road is part of the through route over which the rates apply. He also has a file of tariffs issued by roads over which freight originating on his line may be shipped. So it will be easy to imagine that the principal tariff file of a carrier is a very large thing,

and one which takes considerable expert knowledge to handle properly.

In addition to the tariffs themselves, the Chief of Tariff Bureau keeps a file showing the divisions of these tariffs, that is, the portion of the through rates which his line receives. It is his duty to see that these tariffs and the divisions applying are in the hands of the agents at least thirty days before they become effective. He also makes periodic checks of the agents' tariff files to see that they are kept in proper shape. No rule of the commission is more stringent than that applying to agents' tariff files, and this checking must be systematically and properly done. Many shippers are also interested in certain tariffs and their supplements, reissues or cancellations, so the Chief of Tariff Bureau must keep a mailing list—in fact, several mailing lists—of persons to whom various issues of tariffs must be sent.

Finally, one of the chief duties of this department of the general freight office is the quoting of rates. One of the regulations of the Interstate Commerce Commission is that anyone asking for a rate must be given it, regardless of who they are, what they want it for, or anything else. So the Tariff Bureau is constantly active quoting freight rates to agents, shippers, or merely inquisitive persons.

While the general freight agent is usually not concerned in making the rates himself, he is concerned in their interpretation. To this end many circulars are issued by him, giving the rules applying to rates of all kinds. These rules refer to special services, such as lighterage, switching, milling-in-transit, and other services which are either part of the through rates, or which are in addition to it. These circulars must be carefully thought out, almost always in conference with other lines, in order that the rules of all

may be the same; they must be printed, promulgated and quoted the same as the rates themselves.

The general freight agent, by reason of these tariff duties, comes closer to the station agent than any other traffic official. It is, therefore, part of his duties to take charge of these agents as far as they have to do with traffic department work. The station agent is primarily an operating employee, but he is also an accounting department employee, and a traffic department employee. He must know the rates and rules in connection with them, how to apply them on his billing, and how to quote them to those who ask him. One of his duties is to assist anyone to find any rate which is on file at his station. The general freight agent, therefore, must issue rules and guide books for the information and instruction of these agents, must keep them posted as to any changes in practices in regard to rates or rules brought about through decisions of the Interstate Commerce Commission, and must see that all these rules and instructions are complied with.

The station agent, without doubt, comes more into direct touch with the general public than any other employee of the railroad company, particularly in regard to freight traffic. The conductor may come in contact with the traveling public more, but the shipping public as a whole looks to the station agent for its impression of the whole railroad. The freight solicitor sees many customers, but they are only the largest shippers, and also the most educated ones. The great mass of shippers, shipping packages instead of cars, pounds instead of tons, knows not the solicitor, but only the station agent. With these shippers, then, the station agent is a large factor for the good or ill of his company. A courteous manner, an engaging disposition, and a willingness to aid the uninformed small shipper all redound to the credit of his road.

It is quite evident that it would be unusual to find all of these qualities natural in the average station agent, who gets a salary of \$60 a month or so, and it is therefore one of the most interesting and truly useful duties of the general freight agent to instill them into his agents by means of his circulars, or instructions. They will usually be found quick to grasp hints of politeness, of patience and of helpfulness to the small army of shippers, who, in the aggregate, give the railroad a large part of its business, and whose good will is so necessary to the prosperity of the public servant, which a railroad is.

## CHAPTER V.

### TRAFFIC DEPARTMENT POLICIES.

- § 1. Locating Industries.
- § 2. Securing Raw Materials.
- § 3. Developing Markets.
- § 4. The Relative Importance of Traffic.



## CHAPTER V.

### TRAFFIC DEPARTMENT POLICIES.

There is one division of the traffic department which is just coming to be recognized by the most progressive railroads as perhaps the most important branch of this department. This is what is known on most roads as the industrial department. It is in charge of an industrial agent, agricultural agent, forestry agent or some such title and is sometimes a part of the general freight department, sometimes it reports to the traffic manager, but more rarely to the vice-president.

This department should really be known as the research department and should report direct to the vice-president. The object of this department is to study the traffic conditions of its line, to find out what the possibilities are for increasing its revenue, not merely by solicitation, but by intensive study of the industries themselves, how they can be made to increase their production, how they can be made to give more of this increase to the line studying them.

The work of the industrial commissioner so far, has been mainly confined to locating plants on his line. The agricultural or forestry commissioners, on the other hand, have done more to develop existing resources of traffic by educating farmers or lumbermen in advanced methods which will increase their production and their profits and at the same time will increase the tonnage and profits of the line.

There is not, however, one line which combines all of these methods in one department.

In the next three sections we will discuss the work which a research department might accomplish. This work is usually known as Intensive Traffic Development, and it is the writer's firm belief that these principles can be applied to any railroad anywhere, and will result in a wonderful increase in its profits.

### § 1. Locating Industries.

The first requisite in establishing a bureau of research, or an industrial development department is to find a competent director or commissioner, and let him work out his own problems, and engage his own helpers to do so. This is not as simple as it sounds.

The man selected for this important position must be a very high class and in many respects unusual man. It will not do to employ merely a solicitor, or a rate expert however competent he has proved himself to be in those fields if that is all he is, for while those qualities are necessary in conjunction with others they cannot be the sum total of the capabilities of this official. So it will very often be difficult to find a man in the ranks of the traffic department who is fitted to fill this position, and it may be necessary to go outside for the needed talent.

The director of research should be first a salesman, that is in a way, a solicitor. He will have to know how to approach people, how to present convincing arguments, in many cases to convince against the opinion of his prospect. He will have to be a rate expert, who not only knows what rates are in existence, but what these rates are based on. He will have to know why rates from one point are lower than from another to the same place, he will have to know how to make rates or have them made to equalize competi-

tive conditions. He will also have to have some knowledge of classifications. He will have to be familiar particularly with all forms of special services, switching, milling-in-transit, and other devices which will be useful to his clients.

In addition to these qualifications as a railroad man, he will have to be a statistician. He must collect facts from many different sources; separate the pertinent from the unimportant, classify them, index them, and file them away for future reference. Then he will have to be a real estate expert, able to determine property values at many locations, and their relations to each other, able to ascertain facts as to selling and rental prices, building costs, insurance and other facts which are in the real estate agent's line.

Finally he must be what is generally known as an efficiency expert. He must be able to study a business intensively from the outside and from the inside, if he can get there; he must know how they manufacture their product, what materials enter into it, where they are bought, and where they can be bought; and also what they sell and where they sell it, as well as where it can be sold, and what the possibilities are for its continued sale.

It will be readily seen that such a man as this, combining all these varied qualities, is a rare specimen, and would command a high salary, but there are, of course, many men having one or two of these qualities. If a railroad can find one of these exceptional men to take charge of its research work, it is in luck, but if not, it will be possible to find one who combines several of them and at the same time has two other useful qualities which will be necessary in any event. These qualities are executive ability, and common sense. Executive ability will enable a man to select capable assistants, men who will fill out the qualities which he lacks. In fact a good executive may be able to select four

or five assistants, each one of whom will be an expert in one of these lines, and the director will combine the expertness of all into a smooth-working organization.

Common sense is necessary in order that the director may know what to try for, and what to leave alone. Steel tonnage may be a good tonnage, but no one with common sense would attempt to locate a steel mill in the Adirondack Mountains, any more than one would attempt to locate a lumber mill a thousand miles from a forest. So an executive with common sense may very well succeed in this position without being an expert in any one of the subsidiary professions.

Let us assume now that a director has been found, that he has assembled his staff, and is ready to proceed. What shall he do? His first and in fact his only work is "glean dollars for my railroad." That motto or slogan will be hung above every desk in his office with the words "dollars" and "railroad" underlined. His task is not to create or increase tonnage, he must create and increase revenue through tonnage, or in any other ways if he can find them, and he must never forget that he is working for a railroad company and not for a real estate or contracting firm; that he must not sacrifice the advantage of his line for a good real estate or building proposition. With these two points in mind he will start to work.

The first question he will ask himself and his staff will be "how can we make more dollars for our railroad by increasing its tonnage? We are not solicitors, that's certain; we are creators, developers of business. How then, can we create; what can we develop?" And the answer will come "in three ways; by locating more plants on your line; by seeking to obtain from those plants and the plants now shipping over your line, every pound of their incoming raw material; by increasing their sales to points

reached by your line at the cost of sales to points which your line cannot reach."

Having arrived at this conclusion he will set his staff to work. All three lines can be worked at once, and we shall study each in turn.

First as to locating plants on a line. The first question the director will ask himself will be "what plants shall I seek to locate?" The answer to this is "those whose tonnage is the most profitable," for any old plant will not do; pounds are not the desired end, it is the dollars which pounds generate. The research department will therefore first of all work out the problem of what business is most profitable to its line. Perhaps it is business which its line does not handle at all, it will have to be business which its line can handle. If there is empty equipment of a certain kind, such as coal, refrigerator or automobile cars moving back empty, one of the first thoughts which will occur will be to find some product which will fill them. Perhaps that will not be as easy as it seems at first, but it can be done. Gondola cars can be used for many commodities besides coal. Sand, stone, scrap iron, even old tin cans will provide loads. In a case of this kind it will not be necessary for the commodity to be very profitable of itself, for every pound handled is velvet—the gross is all profit—for the cars must move anyway, and they cost no more to handle loaded than they do empty; at least the difference is so small it cannot be figured. Empty refrigerators can also find a load in vegetables, ice or other commodities. Automobile cars can be used for furniture, beds and many other commodities, which, while not particularly attractive of themselves, are extremely so if they are made to utilize equipment that would travel empty otherwise. One feature of this use of unusual equipment must be emphasized. It is not wise to create loads that will travel so far past the

point of the original loading that there will be another empty movement back to the starting point which would destroy all the advantage gained in finding a load. It is better to load these cars short of the original loading point than beyond. For instance in finding loads for empty coal cars originating at a point such as Scranton or Wilkesbarre and traveling to New York, it is a mistake to develop loads of sand, for instance, moving to Buffalo, for the profit on this long haul would be consumed in the empty movement from Buffalo back to Scranton, besides delaying the return of the cars to the mines. It would be better to obtain loads of scrap iron to points nearer New York than Scranton, if loads to Scranton itself cannot be developed. The earnings may not be as great as the sand, but it will be more profitable in the end.

Suppose, now, for example, that the research director and his staff have searched the records of their company and have found the relative profits of handling various commodities, that they have arranged this list to show which are the most profitable, and what the relative degrees of profit are. What will be the next step? They will take, first, the first commodity on this list. Suppose it is grain. Well, here they are stumped at the start. Grain does not grow in factories, and if their road does not lie in an agricultural region, the only way to develop grain tonnage will be through the regular soliciting force. They will however, pass this information on to the general freight agent that he may so instruct his soliciting forces. If the road does lie in an agricultural region they will, at once, set to work to develop this grain business, not by solicitation but by working with the farmers, teaching them how to grow more crops, extending the area planted and in other ways. If corn tonnage is more profitable than wheat, they will try to induce more farmers to grow corn.

They will work up statistics of prices, of average yields, and other interesting data, they will work hand in hand with other agricultural developers, such as the government department of agriculture and the concerns selling harvesting materials. Perhaps they will then discover that there can be developed a large business in these harvesting materials. If the plant manufacturing them is located on their line, or if they get a full haul on all of this material going to the farmers on their line, well and good; if not, they will seek to locate such a plant on their line, whereby they will not only obtain the machines going to farmers on their line, but to farmers on other lines as well. Then there will be the steel and other materials going into the manufacture of harvesting machines to obtain, and so on, an endless chain of useful, profitable development.

Such processes can be worked out when the commodity is agricultural, but when the research director finds that his most favored business is manufactured, what then? In that case it is not a question so much of developing business already on the line, as of bringing new business to the line. Perhaps the figures will show that although a tonnage of a certain kind is extremely profitable, it is not handled in very large quantities, and in fact, that there is not a single factory manufacturing that product which is located on the line.

The first work, therefore, will be to seek the factories which are in existence. Agents will be sent to study them, from the outside at first. Facts will be gathered as to their location, whether it is on the waterfront, or on a railroad siding, and whether such a location is a necessary advantage or merely a stroke of chance. There will also be ascertained the size and extent of the factory, how many buildings it contains, how many square feet, if the buildings are old and how old, or just built. If they have just

been built the chances are the factory will not care to move. Then the number of employees, the nationality, how they are housed and where they live must be studied. Last but not least the freight situation must be compiled. Where does the raw material come from, and at what rates. Where are the principal markets and what are the average rates applying on them.

When all of this information has been accumulated and tabulated in convenient reference form, the research director is ready for work. It may take months to compile this information, but that will not discourage him.

In the meanwhile his real estate department has been surveying the line. The word survey is used advisedly for it will actually be a survey in many ways. This force will list every piece of real estate to which a siding of the railroad can be built. This list will not, naturally, include farm land and other property far removed from cities, for the place where a factory is to locate must provide labor. These properties will each be card indexed separately showing their location, with a map in each instance, the size, the frontage on the railroad, if they are on a waterfront, and what distance from the nearest city, also the price, if the property is for sale, the owner, and the leasing price, if such there be. This list will also include such other items in regard to the property as insurance rates, nearness of fire departments and police protection, mortgage terms if any, etc.

This real estate information will also include properties in large cities which, while not actually on the line of the railroad are near its freight station and naturally tributary to it, and not to any other line in the same town. It is also desirable to have cards for properties which are equally accessible to your line or to another, in fact this property index may be as extensive as the director may desire, and

is only limited by the size of his force, and the time taken to obtain the necessary data.

When the report of an industry which he desires to locate comes to the director from his field force, he will study it carefully from all angles, first of all from the standpoint of location. Why did it locate in such a place? Was it because it had to have waterfront, or just because it happened there? Is the location near the source of supply of its raw material, or are there several such sources? What about its location in reference to markets? After getting all these points clearly in his mind, the director will try to find among the various available properties on his line, one which will most nearly conform to the necessary conditions of the present location. It is important to distinguish between these necessary and unnecessary conditions, for many times a condition which seems necessary may be really not so. Take a concern located on the Great Lakes, for instance. At first glance it may seem that waterfront location is of the utmost importance, just because the factory has always been there, but upon close analysis it will be found that the business would thrive just as well at an inland point; the lake frontage is an advantage but is not necessary, other things being equal. He will, therefore, in considering these facts, separate the wheat from the chaff, and select the site from his list which most nearly corresponds to the present location of the plant from a physical point of view.

Having done this, he will begin to consider whether the location which corresponds physically will suit in other ways. How about labor conditions for instance? Often factories locate in certain sections because they are near a large source of supply of labor which they must use. They cannot move to another point which may have other physical advantages because their labor market is not there.

If this should be the case the director will at once seek to find some means of overcoming this difficulty. Perhaps cheap housing facilities may be found or developed in conjunction with the factory, where this labor could be housed after it was imported from the section where the factory is now located. If this is the only objection it is quite likely that some enterprising capitalist may be found who will erect dwellings or flats for these people on a profitable rent basis. So the labor problem may be worked out in such a way.

Finally comes the part of the work which is strictly in the railroad man's line—the equalizing of rates. It is hardly conceivable that a factory can be moved from one location to another and at the same time maintain the same freight rates from its point of supply and to its markets. It is therefore necessary for the director of research to study this problem in advance as if he were the traffic manager of the company whose factory he is trying to locate on his line.

If the rates from the new location to markets are lower than from the present site, and if the rates on incoming business are also lower, there is nothing further to be said. If either the incoming or the outgoing rates are lower, and the decrease on this side of the ledger will equal or exceed the increase on the side where the rates are higher, the task is also simple. It is when both rates are higher or when the difference is so great an increase that it matters, that the director has a task. Sometimes of course, the task is hopeless, but these times can usually be discovered at the start. If there is a ray of hope, a loop-hole, he will find it. A change in the source of supply, a chance to open a new market which has hitherto been inaccessible on account of a high rate, will perhaps solve the problem. Each of these two contingencies is discussed fully in the two

following sections. These problems may need some change in rates, some new commodity issues, and, if so, the director can arrange with his traffic manager that these changes will be made in the event of his securing the factory.

When all this data, as to location, labor, freight rates, perhaps even insurance, building costs and other information are gathered together, the director will review them all, and shape his arguments for presentation. He will pick out the peculiar advantages of the move, for there must be advantages, or he cannot hope to succeed, and will marshal every fact at his command to make these advantages the more telling, and to outweigh the disadvantages of which there are bound to be some also. This done, he will himself call upon the president of the concern in question and present his proposition. He will always call himself; this is not a simple proposition in solicitation, it may arise only once or twice a year, but the advantage to be gained is such that he will not care to intrust the task to another. He will allow his field force to bring him facts, he himself will melt them down and present them. He will always see the president, for in these matters his is the last word, and it is better to have the last word first.

Perhaps his first effort will not succeed, then he will keep on trying. If his idea has merit, it is bound to succeed in the end, unless the president is exceedingly arbitrary and obstinate. If, however, for some reason or other, he fails with the first concern he will try again. If one manufacturer of a certain line, the largest perhaps, cannot be induced to move, maybe the next largest can. In time, there may be so many rivals along the line of one road that the obstinate manufacturer will have to succumb in the end.

Some may say that this is a good deal of bother to take to locate one concern; what is the object gained? It is not to

sell real estate, to build a building, to supply labor, it is merely to furnish transportation. The director of research will determine that such and such tonnage is desirable and profitable and he will work to get it, not merely by soliciting it, but by his controlling it, by placing the manufacturer of that tonnage in such a position that he must give it to his line.

And the purpose of this persistency, this great effort for the sake of tonnage, of profits to the railroad is not altogether a selfish one. If only the railroad were to benefit, the effort would hardly succeed. Many more must benefit as well, the owner of the real estate, the builder, the insurance agent, the grocers, butchers and bakers of the town where the industry locates, and so on through all the channels of trade where one dollar put into circulation starts another dollar on its way. And perhaps most of all the manufacturer will benefit, either by lower rent, more plentiful labor, lower freight rates, or better railroad service.

So, after all, the effort of the research department is not wasted. It extends to many different lines of trade, but first and foremost it serves the railroad which profits not only from the tonnage of the manufacturer but from the bricks for the building, through all the many businesses which it starts to move, down to the food and clothing which the workmen will purchase from the local store. In locating one great industry in a position where it may prosper and grow the railroad's research department may justify its existence by its service not only to the railroad but to the community which it has stimulated by the acquisition of this plant.

## § 2. Securing Raw Materials.

The locating of industries on the lines of a railroad is not by any means the only function of an industrial or

research department. It is perhaps the function which above all others originates, grows and culminates in that department. It may be the most profitable field of intensive development, and yet, if never a new plant was located on the line, a research department could justify its existence in other ways every day in the year.

There are many plants now on the line, many plants not on the line but who give it much business. Each one of these plants has possibilities for increased business. If only fifty of these plants were analyzed each year and the fullest possible tonnage derived from each of them, the result in itself would justify the existence of the research department. And if fifty new plants were so developed each year, it would take more than one man's lifetime to develop all the plants which might increase their business with his railroad.

Every manufacturing plant has two sides, the incoming side and the outgoing side; the side that receives the raw products and the side that ships the finished products. Each side is capable of intensive development.

The incoming or raw material side is perhaps the one which is least studied, principally because most solicitation is based upon securing the outgoing freight of which the shipper controls the routing. Incoming freight is left to commercial agents and others, many of whom are stationed off the line of the road, and who, therefore, are unable to determine the extent of the raw materials used in such plants. They look upon them merely as shipments from their locality.

The first thing which a research director will do in starting to develop this incoming business will be to work up a general analysis of the different classes of manufacturing situated on his line. This analysis will be very complete for each line of manufacture, and will show just what

products are used in making the finished product which is shipped. For instance in regard to paint, he will know that certain articles among others enter into the manufacture of paint. Some of these articles are linseed oil, barytes, zinc oxide, lead, dry colors, to mention only a few. But he will not stop there. He will remember that the actual products entering into the goods themselves are not the only things to look for. There will be the cans and the barrels in which the paint is shipped, the labels for the cans, the crates and cases or the wood of which they are made. Then there will be the coal or fuel oil to run the machines, the parts for the machines themselves or new machinery at times.

All of this information will be tabulated for each class of business. Candy with its sugar, glucose, fruits of all kinds, flavoring extracts, chocolate and so forth and its boxes, cardboard, paper, ribbon, everything must be listed. One thing will suggest another, like the boxes of the paint manufacturer. They will come from a box maker who will receive lumber, nails and other materials. The cans may come from another factory where they use tinplate, lead, copper wire and other commodities.

These analyses will have to be carefully compiled, and often from the inside of the factory itself, because it will be difficult for anyone to know all of the different materials which go into the manufacture of so many different products. There is a great deal that goes into a foundry besides iron, many things a soap factory uses besides soda-ash. A complete list can only be obtained by sending one of the field-force to call on the manager of the factory. He will tell the manager that he is making a list of the different products used in the manufacture of his material, will ask him to tell him what he uses and if possible will be shown over the factory. By talking to the manager

skillfully, and making him feel that a real interest is taken in his factory much important information can be secured. Of course a man making something by a secret process may not be so willing to open his plant for inspection, but if he knows a railroad man is seeking the information with the possibility of reducing his costs of some items, the chances are he will be only too glad to offer him all the help he can. On such a trip of inspection nothing will escape the vigilant investigator for the railroad. He will take note of anything he sees which may become tonnage for his line. The smallest possibilities often beget large returns.

After these inspections have been made and complete lists made up under the heads of the different classes of manufacturing, the next step will be to find out where specific factories are buying these things. To this end copies of some of these analyses will be sent to the heads of soliciting offices where these factories are located. In some sections there will be many lumber mills, in others none. The analyses of lumber mills will, therefore, be sent to the soliciting office in the section where these mills abound.

These analyses will not be sent broadcast, but as each class of manufacture is completed a copy will be sent to any and all soliciting offices where any important factory of that class is located. There will also be sent a letter or circular explaining their use and what is desired of the soliciting office.

The soliciting office is supposed to ascertain through their men in regard to each factory of that class in their district from whom they buy each of the raw materials listed in the analysis. To go back to paint, for a concrete example, the solicitor will call upon the Liberty Paint Co., and will develop that their linseed oil comes from the Hub-

bard Co. of Buffalo; their barytes from the Grant Co. of St. Louis; their zinc oxide from the Paterson Zinc Co. of Paterson, N. J., and their cans, labels, crates, boxes, coal, etc., are all bought from local dealers. The information obtained by the solicitor will also develop as far as possible the requirements in respect to those products that are bought locally. Are the cans round or square, or are they a special shape made only by one company? How many do they use each week? Where are their labels bought? How much coal is used? These and other questions will be answered as fully as possible by the solicitor obtaining the report. He will also report as to how much, if any, of the business now moving by rail is handled by his company. The oil comes from Buffalo, his line gets all of that; the barytes from St. Louis, he gets some of that in the summer when the lakes are open; in the winter it moves over a differential route at a lower rate. The zinc comes from New Jersey, his line can't touch that point. These reports on the different individual concerns will be made on blanks furnished by the research department and will be filed away under the heading of the general commodity. On these reports will also be space on which can be noted any peculiarities in regard to the different individual factories, such as that a paint concern can make varnish, in which case it will receive still more commodities, or that it makes putty as well as paint and varnish. Each of these differences from the general run of that particular business will mean a variation and an increase in the number of possibilities for increased business.

In the meanwhile, while these reports are being sent out and compiled by the various soliciting officers all over the system, the research bureau itself will be working on another problem. The director will take each commodity and will look into various raw materials which enter into

it. He will have listed various locations from which each material comes, particularly those on his line or which can be reached by his line through connections. Are there any lead mines on his line, or at points which his line can reach? Who owns them and where is their office located? This sort of information will be compiled in respect to each kind of material entering into the manufacture of the commodity in question. Of course, in some cases, it will be found that no plants or mines or forests producing the material in question are on or can be reached by his line. In that case the research department will not work further on that material.

When these producing points have been listed with the names of the producers the research department will next list the freight rates applying from each of these producing points to the various points where factories using this material are located. This seems like a tremendous task, but really it is not so, as, although this description is necessarily brief in general, in practice these intensive studies will ordinarily be directed at one factory at a time, so the rates to be found to that point will not be very many. When all these have been found and listed the research director is ready for work.

He will start by deciding what he wants to get most, what is the most profitable commodity, the greatest commodity, the greatest quantity of it, and the longest haul. Let us take a concrete example, it is always easier to illustrate in this way than by generalities. Take the linseed oil for instance for paint manufacturers. The research director will discover that this oil is a valuable commodity, that its earnings per car are high, and the expense per car low. His line makes a nice profit on every car that they haul. The longest haul they can obtain is from Buffalo to New York, so he first takes that into consideration, and

finds that there are three large linseed oil producing points, Buffalo, Cleveland and Chicago. All of these points can be reached by his line and its connections and all three will give this line the maximum haul, although his division on the through rates from Cleveland and Chicago is not so great as on the local rate from Buffalo. He will then look up the reports on all the paint manufacturing concerns in the New York rate zone, as compiled by the various solicitors of his line working in that section. There may be as many as a hundred or more of them, large or small. He will go over them carefully putting aside those who already buy their oil from one of these three producing points. If these factories are not receiving all their oil from those points via his line, he will call this fact to the attention of the general freight agent, in order that he may get his commercial agents at those points to work to get this business which is in the ordinary line of solicitation.

He will then take up the reports of those who are not receiving this oil from any of those three plants, and will separate these reports into those who buy locally or in small quantities and those who buy in carload quantities via rail from other producing points than those which his line can reach. He may find that some use imported oil, these he will place to one side also.

Those concerns who buy locally or in small quantities, he will turn over to one of his field force who will investigate each case with a view to determining from whom the oil is bought locally. He will then find out whether this dealer buys his supply from either of the three plants in question, or if he is the local agent for some other plant. He will also develop whether either of the three plants in question has a local agent. If so, he will approach the local agent of the Buffalo plant, and give him the names of the concerns who buy locally from the agent of the other plant

whose goods he can not handle. He will urge this agent to try to sell his product to these concerns, with the understanding that if he does so the business will move from Buffalo over his line. If the agent has been favoring his line in the past this may not be necessary.

The director himself, in the meanwhile, will have decided on the concern which uses oil from a plant not in reach of his line, and he will have picked out the concern which uses the largest amount of oil to start on. He will then call upon the purchasing agent, or the officer who attends to such things and will put a proposition before him somewhat in this form:

"You are now buying linseed oil, a carload a week from the Baker Co. of Norfolk, Va. Now of course we are not in a position to handle this oil for you from that point. We can, however, handle it if you buy your oil from either one of these three concerns (naming them). Now is there any reason why you should not do so?"

He may get an answer that it is none of his business, but of course it is, as he is trying to get business for his road. He may be told that they have a contract with the Norfolk firm; his answer to that is to give the business to one of the other firms at the expiration of the contract. He may find that they have tried one or all of the others and they are not satisfactory. He will in any event set forth any advantage in freight rates or service which there may be when buying from one of his three concerns.

Perhaps he may be able to find out what they are paying for this oil at the present time. If he can do this he will have a great advantage. He may get a favorable answer at once, he may be put off with a promise to think it over when the contract expires, or he may meet with a flat refusal to make any change. Of course if he gets a favor-

able answer he will be sure to see that his line gets all the business.

If the manufacturer's answer is a refusal, the director has still a chance. He will get aboard a train and go at once to see the sales manager or the president of the factory at Buffalo. He will lay before him all the facts at his command in relation to the factory in question, its consumption of linseed oil, the price it pays for it, if he has found this out, the length of the contract under which it is now working, any reasons which may have been advanced to him as to why the brand of oil now used was used, in fact anything and everything which may be useful to the sales manager in his task of selling his product to the factory in question. As to the freight rates, the research director will point out any advantages or disadvantages which there may be with respect to the location of his factory compared with that of his competitor. If his rate is lower he will be able to quote a lower delivered price than his competitor and still have the same profit from his sale; if his rate is higher, it may be necessary for him to absorb a part of it in his selling price, in order to bring that selling price down to the same level as that of his competitor.

It may so happen that this price will be lower than he will care to do business on, or there may be some other reason why the sales manager will refuse to attempt to sell the concern in question. If such is the fact, the research director will not stop there, but will take his proposition up to the president or the head of the firm. If he agrees with his sales manager there is nothing to do but quit.

The possibilities are not yet exhausted however. The research director can still go to the factory at Cleveland and endeavor to interest them in the proposition. Perhaps the arguments which failed to move at Buffalo will prevail

here. There will be a greater freight rate, and a correspondingly greater absorption than in the case of the Buffalo concern, but the expense of manufacture of this concern may be so much cheaper than that of the Buffalo concern that they are able to stand the absorption.

If they refuse, too, he can still try Chicago where even further difficulties will beset him. Mayhap at this last stand he will succeed, if not, at any rate, he will know he has fought a good fight for a worthy cause.

This is but one of the many hundred possibilities of this nature which can be worked out in this way. Of course the head of the department will not work out each one of them himself; he will have a capable, skilled force of assistants whom he will assign to solve different problems according to their relative capabilities. He, himself, will take on the most important ones, and those that seem to promise the most profitable results for his company.

It will sometimes be necessary, in order to equalize competitive conditions to establish or change rates. The research director may find some concern willing and able to compete for supplying raw material to some factory, but the rates stand in the way. This concern may be located on some small road off the beaten track, or at some point where, apparently, it could not compete with other concerns more favorably situated. Of itself it can do nothing, but with the aid of such a powerful traffic official as the director of research, it may be possible for this factory to obtain a commodity rate which will enable it to sell its goods in the location desired by the director, and at the same time will not prove a rate which will lose money for the railroad.

It is apparent that every effort of this kind cannot be successful. If it could many miracles would have to be performed. Physical conditions stand in the way at times.

Goods are imported at a very cheap price which no rate adjustments or price cutting on the part of domestic manufacturers can equal. Quality of material, the necessities of manufacture, and other facts which can not be foreseen at first glance may all deprive the director of his object. But one failure or ten will not daunt him. He will know that for each failure there are ten attempts that will succeed and he will keep on. First his statistics, his reports and his conclusions from them, then the persuasiveness of these collected facts and of his force or himself will bring to his railroad many an added ton of freight, and to himself will be satisfaction in the knowledge that this tonnage will "stay put," that the manufacturers will be grateful to him and his department for showing them new ways of making and saving money, and will reward him in the way he desires by giving him and his line, not only the tonnage which he has created, but other business besides.

### § 3. Developing Markets.

At the same time that the research bureau is developing information and statistics in regard to securing raw materials it will also be developing information and collecting statistics in regard to the other side of the business, the outgoing side. The two sides are radically different, for where on raw materials it is sometimes impossible to develop business for a line on account of the fact that certain products are not produced at any point which is on or tributary to that line, on the other hand the development of markets which will be reached by a line is possible with almost every line of business of any size.

In this work, as in the other, the research director must determine first of all what are the most profitable commodities, which are the goods which his line makes the most profit out of, and which, consequently, are the most

important for him to secure. The ascertaining of this fact will be very difficult at times in connection with the development of outgoing business, for the rates are so varied to the different consuming or distributing points, and the expenses of handling a shipment of the same goods may vary so much, according to its destination, that it is often a hard task to determine whether or not any particular factory's output will prove uniformly satisfactory to handle.

However, in most cases, this can be determined with a fair degree of accuracy, enough so at any rate, to decide whether the factory's output is worth endeavoring to secure. When this point is determined, statistics will be secured from the factories selected, usually in conjunction with the statistics as to the supply of their raw material, as to the various points about their output which the director of research wants to know. Of course, if the factory is located on a siding of his railroad the information as to the destination of their shipments will be easily traced from the billing. It will be necessary, however, even in this event, to ascertain whether any portion of their output is trucked to stations of another line.

The information to be obtained in regard to output varies in considerable degree in the case of different factories, but as a rule should include the total amount of the output, whether in dollars or in some other unit, such as cases, bags, or other shipping containers. This total output must be divided into three sections, the amount distributed locally by team or otherwise, the amount shipped by other transportation agencies; and that shipped by the interested line. The amount shipped by other carriers should also be divided to show to what points it was shipped and by what lines. When all this information is obtained, the research director will be in a position to

study the situation intensively. He will particularly study the business moving by other lines. He will first of all ascertain whether any of it is moving to points which his line can handle. If so, this phase of the work is a simple solicitation problem to be worked out by the general freight agent and his staff. That part of the output moving by express or parcel post can also be secured, perhaps, through the channels of solicitation. The service may be improved in some way to overcome the reasons of time in transit which may have prompted the express movement. The principal problem before the research director will be in relation to the business now moving to points which his line cannot reach. His object in this respect is to secure this business for points which his line can reach and which will afford his line the greatest profit in handling.

He will first of all, however, determine whether the total output of the factory is the total capacity, or whether the output is capable of being increased. If the total capacity is being used, if the factory is running full, the director will naturally have to divert all or part of the output which is moving to points which he cannot reach to points on his line or on the lines of his connections. This will have to be accomplished slowly and gradually.

He will first of all find out through his field force what the consumers in the points off his line are paying for these goods, and from what other factory goods of the same nature can be secured. He will also, through his field force, ascertain what points on his line or on the lines of his connections are consumers of these goods and where they buy them.

Suppose, to take a concrete example, the subject under consideration is cotton piece goods. The total output of the factory is 100 cases each day. Of these 100 cases, which is the total capacity of the mills, 10 cases are distrib-

uted locally, and 90 are forwarded away from the mills. Of these 90 cases, 5 go by express to distant points, 40 by the railroad conducting the investigation, and 45 go by other railroads and steamship lines. Of these 45 cases each day, 15 are exported. Those, of course, are lost to the railroad, 7 go to points which the railroad can reach through its own rails or through connections, and the balance of 23 go to points which the railroad cannot handle.

The research director having completed this analysis, turns over the information in regard to the 5 cases forwarded by express and the 7 forwarded by rail to competitive points, to his general freight agent, and proceeds to analyze further the movement of the 23 cases to points unattainable.

These 23 cases a day or 138 a week are distributed as follows: One car of 30 cases goes each week to a shirt manufacturer in a certain town. The goods are not special made goods but ordinary material that is made by many other factories located at points local on the other line. Another car of 28 cases each week is special goods for a manufacturer of ladies' dresses at another point. Part of these goods are special weave, patented by the manufacturer and made and sold only by him. The rest of the car consists of goods made by many other manufacturers of cotton piece goods. The balance of the weekly quota, 80 cases, is split up in small lots to over 20 different consignees. Some are small retail stores, others are manufacturers, others are dealers. At any rate the problem is how to get 138 cases a week of business from this factory to points on his line.

He first tackles the problem of the shirt manufacturer. He picks out a city on his line where his road will make a nice profit on a carload of this material. He then hunts through business directories, or telephone books for the

names of shirt manufacturers. There is only one and he a small one. So he looks about and finds another city where there is a good profit in hauling these goods, not as good as the first, perhaps, but profitable nevertheless. In this city is a large shirt factory, but unfortunately practically all of their product comes from other mills also on his line. It is no use robbing Peter to pay Paul. He will not increase his line's business with one concern at the cost of losing another, whose product which he had displaced, would no doubt be sold to points off his line, and if by chance these people heard of his interest in this matter, they would at once route every possible shipment against him. So he is very careful about this.

One day, in looking over the billing of cars of cotton piece goods going into this mill, he notices one which draws his attention at once. It is a car coming from a mill on another line delivered to his line at a junction only five miles from the factory and on which his line has only what is practically a switching revenue. Here is his chance! He gets his men to work, finds out that this is a car which they get about once a week, and is such a quality of goods from such a mill. Better and better. Post-haste, the director goes to the sales manager of the mill whose goods he is trying to obtain.

"There's this shirt manufacturer," he says, "getting his goods from a mill hundreds of miles further away than you are. He must be paying a much higher freight rate in the cost of his goods than you would have to charge if you sold him. Why don't you get busy?"

"My capacity is reached now," the sales manager may reply. "I can't possibly turn out another yard of goods."

"Why not cut out some one else and take this one? There's that fellow in Jayville that you now sell. Cut him out, and sell this fellow at a higher price."

The chances are the sales manager will at once despatch a salesman to bid for the business, and as a result of the director's suggestion the manager will decide on eliminating the man in Jayville to make room for the new customer rather than eliminate one of his other customers on the director's line. It is possible that the sales manager might not want to give up the particular customer mentioned by the director, but would instead give up one whose business the railroad already carries. In this event, the director would gain nothing, but at any rate he would lose nothing, and could at once work to obtain the lost business for some other mill of the same kind, in place of some business which that mill was shipping to a point off his line.

When such a thing happens, and the director is forced to look around for another mill to supply the customer whose place has been taken by the one he had secured, he may find that the mill he is looking to to supply this customer is not working to capacity. They can, therefore, take on this additional business without discontinuing any other customers, either off or on his line. The director will, in this event, not attempt so much to divert business that other lines are getting but to increase the business of the factory to points reached by his line up to the limit of their capacity.

In this case, the director will necessarily have to take the sales manager or the president of the factory into his confidence. He will offer to co-operate with them to the fullest extent in developing these markets on his own line. He will know to what cities this business should go in order to obtain the greatest profits for his line, and he will be able to compile lists of consumers in these cities who can use the product of the factory in question. In compiling these lists he will again be careful not to list any concerns

who are buying already from other factories which ship over his line.

In obtaining the business of these consumers the salesman of the factory will have the utmost co-operation of the director of research of the railroad and his staff, with the understanding that his line will handle all the new business going to these consumers. This co-operation will take the form of affording facilities for the best service on these goods. He can arrange special cars for package freight to certain cities where the factory will inaugurate a selling campaign, giving their salesman the additional selling argument of a quick, reliable and established delivery. These package cars will be run at first with small tonnage, but as the business grows their tonnage will also grow surprisingly. Special delivery facilities can also be arranged by the director, such as placing the cars on a certain track each morning when they come in, or unloading the contents of the cars in a specified section of the freight house each day, and having the delivery receipts accessible or in charge of one particular employee. A delivery service by truck or store door delivery can also be arranged, by acting in conjunction with some trucking concern who will pay the freight charges and deliver the goods to the various consumers and render monthly or weekly statements of their transactions to the shipper. All of such aids to selling the goods in the market in question are extremely valuable in building up a flourishing business in that locality.

Some railroads have obtained practically a monopoly of some kinds of business by establishing at their stations special facilities of one kind or another. Auction sales of fruits or produce are one form of this branch of work. All the railroad does is to arrange with some auctioneering firm to take charge of these auctions. They set aside a

certain part of their freight houses or piers for the use of this auction. Into this space are unloaded all cars of fruit or produce which are consigned for this market, where they are open for inspection before the sale. The auctioneer then sells them off, and remits proceeds to the shipper. The railroad vigorously solicits this class of business, and in some cases has been so successful in this respect that special trains are run carrying nothing but these commodities, and during the hours of the sale, usually very early in the morning, no other business is handled at the station where these sales are held.

In places where the volume of business is not so great as to require a facility of this kind, it is possible to develop a market by simpler means, such as the assigning of a weigher and a wagon scale for the potato and onion trade where the buyers can come and buy wagon loads of produce and have them weighed after buying and pay for their purchase on the basis of the scale weight. Other special facilities include grain elevators for developing the grain carryings, located often at seaports where they may be used for the storage of grain moving for export; hay sheds for the storage and sale of hay, where, for a nominal charge, the cars are unloaded, test weights taken, and after they are sold, delivered to teams or lighters. All of these special facilities aid in developing the particular business for which they are intended, and as such they are legitimate aids to the increasing of a railroad's traffic. A research director will be constantly on the watch to find such means and to recommend to his superiors that they be supplied.

In the development of markets for products manufactured on his lines or in cities where his lines terminate, one of the most important factors in the success or failure of the director's work is the rates applying. The question of

rates on such products to the markets sought to be developed, will have to be carefully studied, not of themselves but in relation to the rates from other producing points to the same markets. The relative freight rate is often the controlling factor in establishing a basis for competition, and many rates are made to afford this competition. A manufacturer at the Atlantic seaboard, for instance, may be selling his product as far west as the Missouri river. In doing so he is in competition on the same rate basis with other manufacturers on the seaboard. He is also in competition with manufacturers in the middle west and in New Orleans and the south on a basis of rates which is lower than his. If his product is so much better that he can charge enough more for it to overcome the higher freight rate, well and good; if not, he must either absorb the difference in rate himself to sell on the same basis, or he must decline to enter that market. Perhaps he may overcome the difficulty by locating distributing centers at points near this market where he can ship his goods on low differential rates and reship to the consuming districts as needed, the total freight charge being so little above that paid from the plants of his competitors in the middle west or south that he can absorb the slight difference without trouble. Suppose that this has been the case, but now enters a new competitor. The manufacturers on the Pacific coast, who, up to now, have supplied the district up to the Missouri river, have so enlarged their producing capacity that they have a large surplus to be sold. They prevail upon the railroads to put in a very low rate to Chicago on their product, which will enable them not only to compete in the territory between Chicago and the Missouri River, but even to points east of Chicago which the eastern manufacturers have long considered their own. What is the result? The transcontinental lines are

able to obtain a large volume of tonnage which they could not obtain otherwise; they are able to make a low enough rate to enable the Pacific Coast manufacturers to compete with the eastern manufacturers because they have a large number of empty cars moving east which have to be moved anyway and it costs very little more to haul them full than it costs to haul them empty. The whole competitive situation in this one industry is thus affected by this single rate.

The research director can often find ways of creating markets by such rate changes. He is closer to the situation than any other traffic officer; he is watching the output of his factories; he is wide awake to all these competitive conditions in the various industries under his care, and he can suggest to his rate making officers the advisability of adjusting rates to meet these conditions to the benefit of his own line.

The writer has attempted, in this and the two preceding sections to outline some of the ways in which a department of research can be of benefit to a railroad. The industrial commissioner as now constituted does not do all of these things; his scope is somewhat limited. Perhaps, in some cases, it will be impossible or useless to extend that scope; but in most instances it will be found highly profitable. It goes without saying that all of the information and statistics as to output and supply of raw materials of factories will not be easy to obtain. The research director though, should adopt with these factories the attitude of a helper to them, as well as an employee of a railroad. His motives are not all selfish ones; he is, after all, seeking to find better and cheaper ways of doing business, larger and more profitable distribution of their goods for these industries, and he should on that account be welcomed with open arms. No argument, no induce-

ment that he can offer which will benefit his line, will hold water if it is not at bottom an argument and an inducement leading to better results for his customers. He is therefore, playing a double role; for in serving his customers' interests he is, in the final analysis, serving his employer, the railroad.

#### § 4. The Relative Importance of Traffic.

While the object of the Freight Traffic Department is to get freight, it will be apparent that with the many different class and commodity rates in effect, all freight is not equally profitable. While tonnage is an important factor, revenue is more important, and so the Freight Traffic Department while keeping track of things in general in units of tons, must take thought of the dollars and cents earned by the freight secured for its company, for pounds or tons do not pay for wages or fuel unless they are translated into the coin of the realm. It will, therefore, analyze the class of business it is getting, to see if it can not turn the same number of tons into a greater amount of dollars.

In the first place, all tonnage is not equally profitable—that anyone knows, and the first thing which a traffic department official will study along these lines, is the earning power of the different classes of tonnage they are securing. He will analyze individual commodities and shippers, and will figure out sample cars; for instance a car of beds for a local point. He will find the gross earnings on the waybill. He will figure out the cost of handling, the terminal service, the line haul, the delivery expense, all from units at the command of his operating department. What did the car earn? How much per mile? Then he will take another car going to a point on a connecting line. He will have to figure what his line's proportion of the through rate is, how much gross revenue

his line earns from this proportion, and will set against this revenue the costs of handling and moving this car to the junction point with the other road. He will find that there are some expense units which apply on the car of beds which do not apply on this car; the delivery expense for instance, or the terminal expense on the delivering end. Take a third instance, that of a car which is delivered to his line by another carrier, and is hauled several hundred miles and delivered to a third carrier. He will find in figuring out this car that there are several other items, also that will be eliminated. Practically the only expense will be the line haul. What is the earning—the net earning—of such a car? What does it earn net per mile?

When results of this kind have been obtained on many different classes of business, and many different kinds of hauls, the man directing the traffic department will be in a position to determine which is the most profitable and which the least profitable business.

He will discover that while the units of expense vary somewhat, depending on whether the cars are box, or tanks or gondolas, or whether the haul is over mountain divisions or over divisions which are flat, as a rule the same units of expense apply on the same kind of a car for the same haul. For example, a car of glassware from Chicago to Denver will cost about the same for terminal expense and line haul as a car of soap or a car of flour between the same points. At the same time the gross earnings of the three cars will be entirely different, and the expense being about the same, the difference in the net earnings will be about the same as the difference in the gross.

It is easy to imagine, therefore, that if five cars of glassware and five cars of soap are to be shipped at the same time from Chicago to Denver, and the man in charge of traffic should only be able to handle one of the five car lots,

he would bend all his energies to securing all the glassware, which would earn more per car than soap, and would leave the soap to his competitor. The result would be that while the competitor got many more tons of freight, the man who picked the glassware would get many more golden dollars.

No line, however active, can handle all the business. It has to be split up among many lines, and the wise man is he who realizes this fact and does not try to corner the market, but who so directs his energies that he gathers the cream, and leaves the skimmed milk to the other fellow; for while there may be a quart of cream to two of milk, if the cream is 18c while the milk is 6c a quart, the man with the cream will be the richer of the two. And so it comes to pass that a certain line is known as a flour line, or an automobile line, or a package car line or a coal line, simply because the men in charge of their traffic have determined that those classes of business pay best under their conditions, and they therefore bend all their energies to securing this business which is cream to them.

Now it is apparent that what is cream to one road may not be to another. A different route, a different city, a difference of grades, or in the car supply of certain kinds of equipment may make a commodity which is most profitable for one line between certain points, less profitable for another line running between the same points. So one line cannot judge by the routes of another; and should not blindly try to take business away from a rival which it may be sorry it got, later.

The question of the use of equipment, too, is a serious one. A line may find a very profitable movement in a certain commodity requiring refrigerator equipment. It will secure the business, perhaps, and then will find that all the cars have to be hauled back empty. The cost of

hauling an empty car is almost as much as the cost of hauling a loaded one, so that actually the expense has been nearly doubled with only one revenue. The way to overcome a difficulty of this kind is to develop a business which will give a return haul. Even if the empty cars have to be hauled a few miles to obtain the load, it will be more profitable in the end than hauling them empty all the way back.

A line which has a natural tonnage which requires special equipment of course cannot refuse to handle the business even at the cost of returning the empties. It can though and will seek every possible means of developing some source of use for the equipment on the way home. Sometimes this is only found at a large initial expense.

The Lehigh Valley Railroad, for example, is known as a "coal road." It handles an enormous tonnage of anthracite coal, mined on its line by its own coal company. Naturally the railroad cannot refuse to handle its own business, although practically every gondola car brought into the New York Harbor Terminal of this line must be returned to the mines empty. This problem was one with which not only the Lehigh Valley but the other "coal roads" struggled. The Lehigh, though, has found a solution.

The Bethlehem Steel Company at South Bethlehem, Pa., is located on the lines of the Lehigh Valley. This company owns iron mines in Chile, which it is about to develop. The ore from these mines will be brought from Chile in ships owned by the steel company which could be landed at Philadelphia or New York. The Lehigh Valley Railroad hearing of this contemplated movement, arranged with the Steel Company to have these ships brought to New York, where it would construct facilities to accommodate them. It has just completed a pier and yard develop-

ment costing several million dollars for these ships alone. On the pier are several huge unloading towers, whose buckets grab ten tons of ore at once and empty it direct into the empty coal cars. So, by this great expenditure the Lehigh is not only able to get something to fill its empty coal cars for the movement back towards the mines, but is able to get a nice profit on the ore business besides.

This is merely a sample of the measures which it is sometimes necessary for a road to take in order to create traffic for special forms of equipment.

As a general proposition, each box-car costs about the same to haul, so that practically all carload freight using box-cars will have the same expense between the same points. There will be a great difference though in the gross earnings, depending upon the freight rate. It will be natural to assume that a commodity taking first class rates will earn more than one taking a sixth class or commodity rate lower than sixth class, but this is not always the fact. The higher class rates are usually applied to light and bulky or easily damaged goods with a low minimum weight, 10,000 or 20,000 lbs. sometimes, while the lower class rates and commodity rates are applied to heavy goods with a high minimum—40,000 to 60,000 lbs. or more. It will be easily understood, then, that a first class rate on a car of 10,000 lbs. will have to be six times as much as a commodity rate on a car of 60,000 lbs. to earn the same amount of money. It will be necessary, then, not only to work for business at high rates, but to be sure that these rates are combined with a large enough minimum to make them more profitable than lower class rates or commodity rates where the loads are unusually heavy.

Less-carload business as a rule takes the higher class rates, and it would appear on the surface to be highly desirable business, were it not for two things. In the first

place, there is the additional expense of loading and also the expense of transfer. The more transfers that have to be made the more expense is attached to the handling. The second reason is that the weight of the cars of package freight is rarely very large. The contents of some cars may weigh 40,000 lbs. or more, but many are not over 10,000, so the average is much lower than the maximum. A very good average for all package cars is 25,000 lbs.

If less carload business can be developed which will load in straight cars to destination with no transfers, or, at the most, one transfer to consolidate the car, and which will average above 30,000 lbs. to the car, it is the most desirable business that can be obtained, for the rates are high, and there is such a variety of shippers who can be attracted to a line by this less-carload service, who will give it carload business in addition. Some lines make a specialty of furnishing a variety of through loadings for package freight, and they reap their reward by the increased tonnage forwarded in these cars. This tonnage grows so fast that it is often necessary to split up the tonnage going in a certain car and make a car for another point. For example, a line out of New York will start a through car for Chicago. This car will soon be filled to overflowing and on checking up the tonnage it will be found that there is a nice nucleus for a car to St. Louis. So this car is started and grows and still the Chicago car is full. Then a car can be started from the Chicago car for the transfer of one of the lines out of Chicago, then another car to another line, and so on, until out of the original car ten or more cars, all averaging over 30,000 lbs. a day, may be developed. This less-carload business is really express business and if a dependable service is maintained much business usually forwarded by express or parcel post, can be secured. As

it is manifestly impossible to reach all of these possible shippers by solicitation, it would seem as though some form of freight advertising would be necessary, but this seems to be looked upon unfavorably by all railroads. This is probably one of the reasons why so few of them have developed their less-carload business to the extent outlined above.

In addition to bending the energies to the securing of business carrying higher classification and higher minima rather than lower, there should also be an effort to secure long haul business rather than short haul. This is why so much attention is paid to through business or business going beyond the end of the line. This through business, in most cases, means that the line gets the maximum possible earnings out of the freight carried. As is the case in figuring on high or low class freight, however, there are other considerations which must be taken into consideration. Just because a car travels 300 miles on a line it is not necessarily a better earning car than one that travels 50. The greater haul, while meaning larger income, will also mean larger expense, so that the net on both cars may very well be nearly the same. It is true, though, that increased distance lessens the expense per mile. The terminal costs are the same in either event, and they are often the largest part of the total cost. The difference between the cost of line haul, considered alone, for 200 miles is very little less than for 300, and so on.

Length of haul should also be considered in connection with the question of whether the goods are moving wholly on one line or in connection with another line. If in connection with another line, there will be the division of the through rate which the initial line receives to be considered. A local shipment moving to the terminus of a line will probably carry a higher rate than the amount of

the line's division on a smaller shipment which moves to the same terminus for delivery to another line. At the same time the difference in the two earnings in favor of the local shipment may be consumed in the increased cost of terminal service on the local shipment compared to a simple switching service on the through shipment. This difference is often figured on by the lines making the division of rates, so that the lesser division is actually as profitable a rate as the total of the local rate to the terminus.

The haul must also be considered in connection with the connecting road on through shipments. There may be two or more different connections reaching the same point, but the haul of the initial line may be different in each case. The connection with one line may be 100 or more miles from the junction with another. In cases of this kind, it may seem at first that the shorter haul would be better, but it will be found that the division of the through rate will be lower via this junction than via the longer route, although the through rate is the same in both cases. So it will be necessary to figure carefully which route is the most profitable, considering the expense of moving the car by each route, and then to work for that route.

Again, it will be found that junctions with more than one line are made at the same point. Divisions to the same points through the same junction will naturally be the same by way of all lines, but all divisions, all routes may not be equally profitable for the initial line. To connect with one line may mean a greater expense of switching than to connect with another. The cost per car of the connection with one line may be higher than the connection with another because one line takes freight from the initial line in train loads while only single cars are interchanged with another.

In fact, in considering what traffic to fight hardest for, what traffic to let the other fellow have, it is necessary to make an exhaustive study of many surrounding conditions.

## CHAPTER VI.

### THE SOLICITATION OF FREIGHT.

- § 1. How Freight Is Secured.
- § 2. Managing a Soliciting Office.
- § 3. Systems and Forms Used in a Soliciting Office.



## CHAPTER VI.

### THE SOLICITATION OF FREIGHT.

#### § 1. How Freight is Secured.

Every business has its owner, and a railroad is no exception to the rule. The railroad's owner is the public. Contrary to the general thought our great railroads, with but few exceptions, are not owned by one or two powerful financiers, but by a large number of independent stockholders. Many of the stockholders own a single share, some are institutions whose principal mission is the sustenance of the poor or those unable to provide for themselves, others are savings banks or insurance companies holding in trust the earnings of the depositors or policy holders for that "rainy day" which may some time come.

It is easy to imagine, therefore, that many of the inhabitants of our country are, either directly or indirectly, almost entirely dependent upon the earnings or dividends of our railroads.

These dividends are what is left of the gross earnings after the payment of expenses of operation, taxes, interest on bonds and all other expenses of every kind. Some of these expenses are fluctuating; some are fixed. Fixed charges are interest on bonds, insurance, taxes and depreciation. These fixed charges remain the same whether the gross earnings are large or small, and must be met before dividends are paid if the property is to be kept out of the hands of a receiver. The other expenses, known as

operating or running expenses, vary more or less with the amount of business done, but at the same time there is here, too, a point below which these expenses, particularly those for maintenance or upkeep of the property, cannot go if the road is to continue as a going concern.

The organization of a railroad is, therefore, divided into two general divisions, the operating department, or those whose business it is to spend money, and the traffic department, or those whose business it is to get the money to spend. One of the chief functions of the operating department is not to spend money but to save money. A competent operating organization is always trying to cut costs, to increase the loads of the cars, to increase the number of cars in the trains, to decrease the number of trains per unit of tonnage. All of these savings, or most of them, can only be accomplished by further spending of money, by buying larger cars, more powerful locomotives, or by laying heavier rail, shortening lines and straightening curves. To do all this the road requires money, and if it has not got the money in its treasury, it must borrow it.

When a railroad, like anyone else, wants to borrow money, the lender wishes to know two things—first, is the road able to pay the interest on the money, or will the expenditure of this money as planned, enable it to increase its earnings to a point where it will be able to pay interest on the borrowed money. In order to determine these facts analyses are made of the railroad's "earning power," and the earning power is determined more than in any other way by the road's gross earnings, for though savings can be made and units of equipment and power per ton decreased, if there is no ton, there can be no earning.

It is of the utmost importance then that the gross earnings should be at their highest point, and of the most

profitable character, if operating efficiency is to reap its reward in increased net earnings.

Gross earnings are the sinews—the cash. They are represented by earnings from three principal sources—passengers, freight, and express and mails. Mail rates are absolutely fixed by the United States government, and the express earnings are largely dependent upon the energy and ability of the express company operating over the road, so that the two classes of earnings with which a traffic organization is most vitally concerned, are the passenger and freight earnings.

Passenger business is that which first strikes the layman as being the railroad's earning power. Everyone does some traveling—many a great deal—and we often judge the whole efficiency of the railroad we travel over by its passenger service. Fine equipment and luxurious trains give the traveling public the impression of great prosperity, but he hardly ever looks out of his Pullman window at the lines of freight cars standing along the tracks and realizes that there is where the railroad's prosperity begins and ends.

For the passenger end of the railroad's traffic is, as all railroad men know, the least remunerative end. There are instances where certain trains or certain divisions or even where some railroads make a profit on their passenger business equal to that of their freight, but those instances are few and far-between. As a whole, the passenger business is the showy, effective, "advertising the family" brother who is supported by the hard-working money-making freight.

Much time, money and thought is spent on increasing passenger business, for after all there should be no part of a business which is not worked to its highest state of efficiency, but the greatest time, money and thought is

spent on the development of the real business of the railroad—freight.

Now, how is freight secured? Some freight comes to a railroad of its own accord—that originating on its own line. But the proportion of this freight to the total is small, and unless the movement of the freight begins and ends on a line, is in other words a “local” shipment, there is the chance that the line may lose a part of the haul on it and a consequent revenue. For a railroad tries not only to get freight, but to get the greatest earning out of each ton it can.

There are many kinds of freight and many and devious ways to move freight, and so the traffic department must see that its line secures every possible pound. Competition exists almost everywhere, and is unusually keen, so no chances must be let slip. Even a local shipment by being accorded good or bad service, as the case may be, may be the means of attracting or of losing much valuable competitive traffic. Railroads, almost without exception, studiously avoid all forms of freight advertising. They spend many thousands of dollars in boosting their passenger business, which, as pointed out before, is the branch that earns the least, while they spend not a dollar in boosting the branch where most of the dollars come from. The reason for this is that if one road started an advertising campaign all its competitors would follow at a large cost without a compensating return. Some form of circular advertising, however, would no doubt reach many small factories and stores which ship and receive freight, and have no possible means of knowing what are the advantageous routes and by which lines the lowest rates and the best service may be obtained. A comparatively small proportion of the outlay devoted to passenger advertising would reach these people with an effective argument, and

would cause many tons and many dollars to start in the direction of the enterprising railroad who took this method of informing prospective patrons of its rates and service.

However, this is not done, and the railroads depend entirely for their freight earnings on what is known as solicitation.

Solicitation may be primarily defined as the art—for it is an art—of inducing a prospective shipper to route his freight over a certain line, there being more than one line which reaches to the point in question. But if this were the be-all and end-all of solicitation, it would be a simple matter. There are many incidental features which a true solicitor studies, and it is these features, which, after all, are the most important. If a railroad should pick out for its soliciting force only those with the faculty of securing a certain carload of freight, it would soon find that another road whose solicitors not only secured the freight, but followed it, watched, traced it, and reported on it, to name only a few of the “incidentals,” would not leave much freight for the first road to secure.

Therefore, in the following pages, we will take up first, the actual securing of the freight, and then the other duties or privileges of the expert solicitor.

Suppose you are a small manufacturer in Chicago, and you receive an order from a concern in New York for a carload of the goods you manufacture. Perhaps this is the first large shipment you have made in many years, and you have no traffic manager, no rate or route books, or no shipping guide. How would you ship your car? Your contract calls for a price f. o. b. New York, which means that you pay the freight. You are also obligated to get the car to destination within a certain number of days. You rack your brains for the answer, and almost begin to regret having accepted the order, when in comes your office boy.

"A gentleman to see you, sir."

"Who is he?"

And then you read from the card handed you that your visitor is A. B. Jones, soliciting agent for the East and West Railroad.

"Soliciting agent?" you think. "What is he soliciting, a contribution? Anyway he may be able to tell me something about this car. Show him in!"

In comes Mr. Jones, dapper, neat and looking as though he knew all about his particular business, and something about yours as well.

"Good afternoon, Mr. Smith," he says, "I came in to see you about that car for Brown and Co., New York."

"How the deuce do you know anything about my car for Brown and Co.?" you exclaim, fearing some of your employees had been telling tales out of school.

"Why our general eastern agent wired the manager of our fast freight line that Brown had placed this order with you; so as you are located in my territory, I came right around to see you."

"Well you're just the man I'm looking for," you say, "but tell me a little about this eastern agent; how did he find out about it?"

"Why that's all part of our system of solicitation, Mr. Smith. Our G. E. F. A., you see, knows Brown's traffic manager very well; in fact we get most of their business coming west, so he told our eastern freight agent that they had placed this order with you. He would have given us a routing order on it, except that it was f. o. b. New York."

"So that's it, is it? But I only got the order this morning."

"Well, I've just had to close a contract for ten cars of hides for Pittsburgh, or I'd have been in about 10 o'clock. You see our New York office got the tip yesterday, and

wired out here last night. So we got the wire first thing this morning, and it was put on my desk before I arrived."

"You've certainly got some system. If you can handle the freight for me as well as that, I guess I'll have to give it to you."

"Well, we want it, Mr. Smith, and we certainly can handle it for you. I notice you have no traffic manager, so you'll probably want to know the rate."

"Yes?"

It is 52.5 cents per 100 lbs. if packed in crates and 31.5 cents if packed in cases."

"Well, I was going to crate it, but I guess that 21 cents difference will more than pay the cost of the cases."

"I think so, too. Now, of course, I only represent the East and West Railroad, and we ourselves do not handle the car until it reaches Buffalo, so you are at liberty to use any line you wish as far as Buffalo."

"All right."

"But just be sure to put in the space on your bill of lading, where it says 'route,' 'c/o E. & W. R. R. at Buffalo.' I'll write it so there'll be no mistake."

"Thank you."

"When do you expect to ship the car, Mr. Smith?"

"Tomorrow, I guess."

"Well, I'll stop around in the morning and see that you have everything lined up in proper shape."

"I'd be obliged if you would."

"Thank you for the business, Mr. Smith. Good-day."

Not so very long afterwards, while Smith is still racking his brains to think what road to start the car on from Chicago, his office boy brings him another card.

"N. P. Robinson, representing the Chicago and New York Railroad."

Enter Mr. Robinson.

"Hello, Mr. Smith, have a cigar?"

"Thanks, I don't smoke."

"Say, you're like old Joe Stevens of the Michigan Stove Co. He don't smoke neither. Old Joe and I were down at the Golf Club the other day—do you play golf?"

"Yes, but about—"

"I know. About 100 eh? Well, old Joe was going along pretty good, when on the fifteenth green he has a putt of about two feet. Say—"

"Excuse me, Mr. Robinson, but I'm rather busy this morning, and I thought you came in about that car."

"What car?"

"The car to Brown & Co., New York."

"Brown & Co.? No. I didn't know you had a car for New York. I just stopped in on general principles. I was in to see Bill Fox next door. You know Bill?"

"No."

"Well, Bill's the best fellow—. Well anyhow, he was out, and would be back in a half hour, so I stopped in."

"I see."

"But now you got a car for New York. How's she routed?"

"East and West at Buffalo," answers Smith, remembering Jones' instructions.

"Why we can take it all the way for you. What do you want to hook up with that line for? I suppose they boosted the Buffalo and Western from here?"

"No."

"Well, most of their freight routes over the B. & W. Why if I was a shipper I wouldn't give that bunch a look in."

"How about your line?"

"Well, ain't I told you we take the car all the way?"

That's the simplest. You just send your truck down to 48th St. Station tomorrow, and we'll take it through."

"Do you connect with the East and West at Buffalo?"

"Sure we do, but that isn't the way to ship it. Give us the full haul."

"Would you accept it if it was routed care of East and West at Buffalo?"

"Sure, but we want all we can get."

"So I see. Thank you, Mr. Robinson. Good day."

"Goo' day."

And Robinson goes out wondering whether he'll get the full haul, or half of it, but never dreaming that he'll get nothing at all. For to conclude this little story, Robinson's derogatory remarks about the B. & W. had the reverse effect of that intended, and Smith soon had their agent on the wire. The information was given courteously, and the car routed properly.

The next morning Jones appeared, took note of the bill of lading, secured a car at the Buffalo & Western station, and departed. Two days later Smith received a report that his car had passed Buffalo; two days after that a further report that it had arrived at New York. This order led to many another car, and they are all moving via the East and West Railroad at Buffalo.

Mr. Jones is a welcome visitor, and Mr. Smith is usually out when Robinson calls.

This, then, is a fair example of solicitation; the right and the wrong way. Jones is the right type for this important branch of railroad work. He knows his business, knows the proper manner of approach, and won his prospect at the start by gaining his confidence. Robinson, on the other hand, knew a little too much about some points of his business, and not enough about other more essential points. He had evidently been trained to get the full haul

regardless of consequences, to be hail-fellow-well-met to all men, and yet he merely stopped in to kill time, and had no idea how to secure business that was ready at hand. Let us not say that he was trained to these things; rather he was untrained in the fine points of freight solicitation.

## § 2. Managing a Soliciting Office.

Railroad officers, in direct charge of solicitation, are known by various titles. The trunk line railroads have an officer known as a general eastern freight agent in charge of the solicitation in New York City, with division freight agents or commercial agents at other cities on their line. They also maintain, in cities of importance which are not on their line, soliciting offices in charge of general agents or commercial agents.

The western and southern lines, whose rails do not reach New York, and who maintain offices there for solicitation, have an officer known either as a general eastern agent or general agent, freight department, or some such title in charge of solicitation in the City of New York, with division freight agents at points on their own lines and general agents or commercial agents at other points not on their lines.

In this way the whole soliciting system of all the large carriers is interlocking; in all larger cities practically every line has an agent of some sort. This agent may be working alone, or he may be in charge of one or more men. So on every car of freight that is shipped which moves over more than one line, there are solicitors after it, not only from the various rival initial lines, but also from the rival lines in all the different territories through which it passes. Take a car going from New York to San Francisco, for instance. There are first the solicitors of all the standard trunk lines; there are the solicitors for the differential

lines—these all are working for the movement from New York to Chicago. Then, as some of the trunk lines terminate at Buffalo, there are the solicitors for lines running from Buffalo west, who want a part of the movement. There are the lines west of Chicago; the through transcontinental lines; the lines running from Chicago to St. Louis, to Kansas City, to Omaha; and the lines running from those cities to the coast. So it can be readily understood that if every line that could possibly participate in a movement of this kind should have its solicitors on the job, there would probably be fifty or more solicitors all trying for some of the revenue of one car.

Of course this doesn't happen, and the reason it doesn't, is because there are guiding hands in charge of solicitation work. If there were no responsible head, there would probably be two or three solicitors for the same line all working on the same car. Suppose fifty solicitors should be striving for one car, their wages for one day, at the lowest calculation, would be \$200 which would consume a large proportion of the earnings of the car, which would be between \$500 and \$700, on the average, from coast to coast.

The man in charge of a soliciting office must be, first of all, a solicitor himself. The man who sits at his desk and makes plans for others to carry out is not worth a sou in this game. He must be not only a solicitor, but an expert. He must not only be a sure business-getter, but a teacher who can instruct his force in the fine points of solicitation work, who can bring them to something approaching his own standards of solicitation.

The first essential is to pick the men—the solicitors. In some offices there are only one or two, in others there are twenty or more. The general plan is the same in all. Each soliciting office, whether composed of two men or

twenty, has a certain territory assigned to it, which it is supposed to cover. The man in charge of that territory must decide for himself how many solicitors he needs to cover it, and must obtain the authority from his road to employ them. This question, of course, is answered differently in the case of each individual line. An out-of-town line—that is, one whose rails do not reach the city in question—will not need to have as many solicitors in that city as a local line. A line which specializes on through business and lets the local freight take care of itself will not have as many solicitors as the line which solicits both kinds of business thoroughly. In general the number of solicitors is dependent on the volume of business which is expected to be developed from that territory. One line may be able to develop more business from the same territory with fewer men than some other line can. The idea is to search about for the correct number to fit the special task, and then start in. If it is found, after working for a month with, say, five men, that the territory is not being properly covered, that business is slipping away because there are not enough solicitors to get around to everybody on time, the force should be increased. If it is found that the solicitors are doing all they can, and yet have some idle time, then there are too many, and the number should be reduced.

Having found the proper number needed, the next point is to divide the territory. This division will also be made with particular reference to the individual line. No two lines will have the same division except as a coincidence, for they do not work under the same conditions. Even if two lines run from New York to Buffalo, and their general eastern agents have the same territory to cover, the division of that territory among the different solicitors will be different. One of the roads may have large mills of a

certain kind on its line which the other has not got; it will, therefore, devote solicitors to that trade which are not necessary on the part of the other line.

This division of territory is made in many ways. The first way is geographically. An ordinary human being can cover just so much ground, just so many blocks, but here again the individual governs the division, for John Jones may be able to do more in twenty blocks than Fred Smith can do in five. The real basis of division is the man, and the selection of the man is based on what he is to be used for.

The general qualifications for the best results in a solicitor will be later set forth, and in picking men the man in charge of a soliciting office will always endeavor to find men who have those general qualifications. They are hard to get; they do not spring "fully armed from the head of Jove," but if they have the right character and the right temperament, the technical knowledge can be imparted quickly. Even if an expert solicitor of one line is taken over by another line, he has to spend a certain amount of time learning the conditions affecting his new line before he can solicit for it successfully.

Assuming, then, that the solicitors to be selected have the proper general qualifications, it is necessary to choose men who are adapted or adaptable to the particular work they will be called on to do. In addition to dividing the territory geographically, it can also be divided by commodities, which in most cases corresponds largely to a geographical division. For example, the piano trade is usually in one part of a city, the dry-goods district is in another location; the grocery district, the manufacturing district and so forth are usually geographical as well as mercantile divisions.

It is well, therefore, where this is the case, to select men

for their proficiency in getting certain lines of business. There is no object in having three men who are experts on dry goods when one man can take care of that district, if the other two men cannot be adapted to solicit other lines. The reason for this division among lines of trade is the same reason as for specializing in any proposition. The mind is concentrated on one subject. A man who devotes his time to soliciting shoes, for example, soon gets to know not only the various rates on shoes to almost all points, but he knows what products enter into the manufacture of shoes; where the principal manufacturing centers are; where the greatest markets are; whether a new market that one shipper has developed can be opened to other shippers; what factors control the selling of shoes and consequently when there will be fluctuations in the shipment of them; and hundreds of other details which a man who flitted from trade to trade could not begin to become acquainted with.

Another method of division—really a division within a division, or a correlative division—is according to the type of traffic manager or shipping clerk the solicitor will meet. A solicitor may reap wonderful results with certain types of shippers, uninformed ones perhaps, but will fail utterly with other types, perhaps well posted ones. Or, on the other hand, a man may fail with ignoramuses, and make a great hit with experts. A solicitor may have an appeal to traffic managers which is lost on shipping clerks. This class of soliciting specialists should be set to work in the atmosphere, and among the class where they will get results. Perhaps, of all the shippers on a certain solicitor's route, there is only one with whom he is not successful. It is advisable in that case, to put that one customer in another solicitor's hands, a solicitor who will be a success with him.

Another division is according to the physical capacity of the solicitors. There is no certain number of shippers which can be assigned as a unit per solicitor. One solicitor may accomplish twenty calls a day and get results from all of them, where another will have difficulty getting one car in five. This difficulty may not be through lack of ability—if that is the case he should not be employed at all—but because the people he sees are not as easy to interview as the other solicitor's customers. So each solicitor should be fitted with the amount of work that he can best handle, both in quantity, in quality, and in kind. If this is done successfully—and it is no easy task—the first problem of managing a soliciting office has been solved. And yet, if one of these men who have been so carefully fitted into their niches, like pieces in a picture puzzle, should die or resign, the whole process would have to be gone over again, and everything redivided and reassigned, unless there should be the wonderful luck of finding an exact counterpart of the missing cog in this wheel of solicitation.

When the actual solicitors, the backbone of the force, have been selected and fitted to their appropriate places, the next part of the program is to organize an office force. This office force should be so arranged as to turn the work of the solicitors to the best account. The main cog here is the chief clerk. The chief clerk will be selected to be what the boss would be if he stayed at his desk, that is, the guiding force for the office organization. He will be as familiar as the boss with the capabilities of the various solicitors. He will receive their reports, read them carefully, annotate them for the guidance of the head of the office. He will engage and be responsible for the stenographers, mail clerk, bill of lading clerk, tracing clerk, claim clerk and such other clerks as there may be. He will

devise, under the direction of the chief, the forms and systems which are used in the office in compiling and recording the results of the solicitation work, and he will be the chief's right hand man in all matters except the actual securing of the business.

The head of the office, whatever his title, (let us call him general agent in future for clarity), will devote his principal time to marshalling his soliciting force to the best advantage. He is the general directing the attacking army, while his chief clerk is both his orderly, bringing him information, and the supply train, furnishing the ammunition to the army for the attack. The general agent, therefore, must keep in touch with all parts of the battlefield. Each day he will read the reports of his solicitors as furnished by them and annotated by his chief clerk. He will in this way obtain a general survey of the whole field of action. He will judge which of his men are accomplishing results, and which are not. He will, when he finds that one of his men has had a great success, call him in and compliment him. Nothing so stimulates endeavor as a cheering word of commendation, a recognition from a superior of work well done. If he finds, on the other hand, that one of his men is not getting the results he expects of him, he will not scold or reprimand, he will call him in and talk the situation over with him. Perhaps the trouble is a lack of some small detail, an ignorance of some infinitesimal argument which might have been used; at any rate, the general agent with his broader knowledge and experience will very soon straighten the thing out, and will no doubt furnish a hint which will be of lasting benefit to the solicitor. If the problem is a knotty one, the general agent will go with the solicitor to call on the customer in question, in order to get a first-hand view of the obstacle. No matter what the cause the general agent

must impress upon his force that there must be no let-up in their work.

The general agent, as stated at the commencement of this section, is first of all a solicitor. He will reserve for himself exclusively, the largest and most important shippers of his territory. He will call upon them regularly and solicit their business as his solicitors solicit the business of other shippers. In addition to this he should make it a point to spend a day or two every other month with each one of his men. He should note from their reports or from his conversations with them, certain customers he wants to call upon, about certain matters, and should call upon them with the man in whose district they are. He will in this way keep in touch with all his solicitors, will learn what manner of men they are in the field and under fire, and will find out how they are regarded by their customers. Besides this the customers called upon will feel complimented by the calls and the visit will probably result in increased business. On these trips, except in rare instances, specific cars will not be solicited. That is part of the daily work of the solicitor. The general agent will merely call for the purpose of making a general impression, to secure the good-will of the shipper for himself and his road, and to create the desire on the part of the shipper to favor his road as a return for the compliment implied in the call.

When a new station is opened in his territory, or where a new service of some kind is arranged, the general agent should make it a point to call on the principal customers who are affected by the change. These calls will be made in company with the solicitor assigned to that district and who will in future solicit business from them.

In making these calls on customers in company with a solicitor, either periodic or at special times, the general

agent should allow the solicitor to do most of the talking. The solicitor will introduce the general agent, if it is his first call, and will then outline the purpose of the visit. All the general agent should do is to back up his man, to confirm statements as to service, and in general to watch his solicitor work. In this way he will obtain a line on his solicitor's methods, and will be able to suggest to him afterwards ways of improving them, if necessary. If the argument is getting too much for the solicitor, or if the general agent sees a chance of clinching the business by a well-chosen point, he should step into the breach at once; but for the general agent on these calls to monopolize the conversation, and to leave the solicitor without a word to say is a great mistake. In the first place, it gives him no line at all on his solicitor's ability, and besides it is sure to give the customers the impression that the general agent is so far superior to the solicitor that they will never feel like doing business with the solicitor again. After all, the solicitor will call there regularly, and the general agent maybe twice a year, so it is the solicitor who should have the power to get their business while the general agent should merely leave with them the impression that he is taking a friendly interest in their welfare, and in their traffic.

In addition to these visits to customers with his solicitors, and the solicitors' reports and conferences with him, the general agent will arrange regular meetings of the whole soliciting force under his charge. These meetings are usually held on Saturday mornings. The general agent will open the meetings by addressing his men, calling their attention to details of the preceding week's work, culled from their daily reports. He will impress upon them the fundamental principles of solicitation, will call their attention to new rates, new train schedules, changes in the

organization of the traffic or other departments, and other items of interest. He will then throw the meeting open for general discussion, or he will call upon each solicitor in turn to report anything which has occurred during the past week which may be of interest.

The solicitors will at that time bring up problems for solution. One may tell of some customer he knows with certain peculiarities of temperament, which he finds difficulty in overcoming. He will ask for advice as to how to handle this particular man from his brother solicitors, some of whom will no doubt have overcome, or is now overcoming difficulties of the same nature. Problems of other kinds will no doubt come up for solution, and some solicitor, or else the general agent himself will surely be able to furnish the answer.

In addition to this exchange of information and solving of problems, these meetings are most useful as a means of education. By listening to the ideas of the different solicitors and their manner of expressing them, the general agent can judge better than in any other way, the capabilities and the limitations of his various men. He will then be in a position to bring out and develop the strong points of each man's character, and to help him overcome those weak points which are a detriment not only to the solicitor himself, but to his road. At the same time the men will be educated by hearing the opinions and ideas of their chief, and will unconsciously graft into their own characters some of the qualities which have made him so successful a solicitor. If, at some of these meetings, one of the higher officials of the traffic department is present to say a few words, there will be even more opportunity for education. The sum total will be that by means of these meetings there will be developed a capable, hard-working organization, with each man in his proper place, and there will

pervade the whole force a spirit of fellowship which will be welded together by the knowledge that all are working for a common cause—service to the line and to each other.

### § 3. Systems and Forms Used in a Soliciting Office.

After the head of a soliciting office has selected his men, apportioned them over his territory according to their several capabilities and has kept in touch with their development into the highest type of solicitor, he will naturally be anxious to learn whether his judgment of them has been accurate, whether they are making good in the various roles he has assigned them to.

He will, therefore, wish some evidence of this, and will find it in two ways. The first way is from the men themselves, from their daily written reports, and from their conduct at the weekly meetings. He will analyze those calls which have not proved fruitful with a view to determining whether the reason for each failure is due to some circumstance over which the solicitor has no control, such as a prior routing by the shipper, or whether the failure to secure certain business is due to some missing quality on the part of the solicitor. To the end that he may have sufficient material for this analysis, he will require the solicitor's reports to be rather full of detail, particularly in respect to those calls where no business was secured. He will not be satisfied, except in cases where he has the utmost confidence in a solicitor, with a sketchy report merely touching on his day's work in an offhand way.

From these reports he will also be able to judge, if they are full, of the activities of his solicitors in other matters than straight soliciting, such as the handling of claims and tracers, the development of new business, the collecting of

tips for the use of other solicitors, and other details in which an expert solicitor takes pride in being proficient.

From the weekly meetings he will learn whether his solicitors are quick to grasp new ideas, whether they can invent new methods of solicitation or new ways of being useful to customers, and thereby make themselves more indispensable to such customers. He will learn whether they are patient under reverses, and under rebuffs on the part of shippers, whether they are persevering when business seems to be lost to them, whether they are awake to deficiencies in service or in other respects which cause a loss of business to the line, and whether in such cases they are intelligent enough to suggest a remedy.

However, these reports and these meetings will not be the only line which the chief of a soliciting office will have on the work and abilities of his men. After all, these reports are compiled by the men themselves, and it is human nature for any man to exploit his successes and condone his failures to the fullest extent. It is only natural to suppose, therefore, that in many cases the reports will be colored, not intentionally perhaps, but colored none the less to impress the reader with the good qualities of the writer, and to gloss over as well as may be the poor qualities. And so, as results are what actually count, as tonnage is the ultimate end to be desired, some means will be found of measuring the solicitor's success or failure in pounds or tons.

The first concern of the general agent in this respect will be the measure of his own office as a whole compared with that of his competitors. In cities on the line where there is no competition, or where the competition is more generally to the same points or on the same kinds of business, this comparative standing can only be determined in a general way. In large cities which are the termini of

many lines, and where the competition is mostly to the same general points and on all kinds of business, this comparative result is determined by statements issued by the Traffic Association composed of all the lines entering that city. In New York for instance, these statements are issued by the Trunk Line Association, and the most important statement is popularly known as the "Yellow Sheet." This statement shows the amount of business to competitive points handled by each road by classes, also the percentage which each road's tonnage bears to the total, and the equivalent tonnage in the unit of first class business. This statement is eagerly watched for by the general eastern freight agents who have charge of solicitation in the New York territory, for upon its figures rest their reputation with their superiors. Not only that, but these statements will furnish them with the truest possible line on the results which their soliciting force is obtaining to these competitive points.

These "Yellow Sheets" are the basis for much discussion at the weekly meetings, and much useful information is drawn from them. For instance a road may lose a heavy amount of tonnage and yet increase its rank and its percentage by reason of another road losing more, or because the total tonnage has taken a larger drop. Contrary to this, one road's tonnage may show an increase and yet their percentage may be lower because the total has shown a larger increase.

So these statements must be carefully analyzed by the head of the soliciting office, and the reasons for his office's showing made clear, whether it is good, or the reverse. The figures may show an excellent statement for his line, and yet he may know or develop that actually the result is poor, because he may himself, for instance, have secured that week one large shipment of maybe one hundred cars

or more of business which will never move again, while, if these cars were deducted from his tonnage, the general, every-day, steady business would show a severe decrease. So the figures on their face may be misleading, while, if they are analyzed carefully, they cannot fail to show exactly how the work of the soliciting force is resulting.

These statements will show in a graphic manner, the sum of the results obtained by the soliciting force, but they will not show the results obtained individually, or the total business secured by each solicitor, as no account is taken of local shipments. Now while through business is of course the most desirable, no railroad can afford to neglect the local business. There is much local business that pays quite as well as some through business where the rates are based on competitive conditions and are not as high per ton-mile as the local rates. Then again, some solicitors are covering territory which has a large volume of local business and very little through, while another may be covering a territory where exactly the reverse conditions obtain. It would not be fair, then, to take account only of the through business, for the solicitor who covers a local shipment territory should be recognized in the records as well as the one whose route lies in more favored paths.

There are two kinds of records commonly used for determining the relative "pickings" of the various solicitors. One of them is known as the "commodity card," and the other is the "shipper's card." These records are not universally kept, but they should be, and therefore for the benefit of those offices who do not keep such records, a typical card system will now be described. In the first place, in some offices where these systems are in effect, cards are not used for the records, particularly of commodities, but cards are preferable for they are more easily

handled and can be used individually and without disturbing the rest of the record.

The commodity card is a small card, about six by four inches. It is ruled horizontally to give space for the twelve months of the year, and is ruled vertically to give space for as many years as the card will hold, usually about ten. At the top is space for the name of the commodity. These cards are used to record the number of carloads of each class of carload freight, such as beans, grain, fertilizer, etc. The information contained on them is compiled in one of two ways, either from the waybills which are sent in each day from each billing station or from a list furnished by the various billing stations. These lists are made up at each station within the territory covered by the soliciting office and show the number of carloads of each commodity forwarded from each station. They may be made up daily and forwarded to the soliciting office, but it is much simpler to have the figures compiled day by day in the agent's office and sent in one list from each station at the close of the month. When these lists are all received in the soliciting office, all the cars of each commodity from all stations are added together and a total for each commodity is made covering the whole territory in charge of the soliciting office. These amounts are then entered on the cards. There should be an incoming card and an outgoing card for each commodity, designated either by different colored ink or by the letters E. and W. or some other identifying mark. Finally, on the back of each card should be written in pencil, the names of the various shippers or consignees, who ship or receive such freight. This provides a useful cross index to the shippers' cards which are described below.

These commodity cards are filed in different ways. Some have a card for each specific commodity, some only one

card for each general subdivision, such as grain. The former is the better method. Incoming and outgoing cards should be filed separately and separate divisions should be made for regular and irregular. Thus there may be a car of egg case fillers one month which may never occur again. The dividing line between regular and irregular is about one car a month or ten cars a year. These cards can be filed either alphabetically through each of the four subdivisions—incoming regular and irregular, and outgoing regular and irregular, or each subdivision can be indexed under the general headings given in the tonnage reports submitted to the Interstate Commerce Commission, that is, products of agriculture, products of mines, products of forests, manufactures, etc. The length to which this indexing should go will be determined by the number of cards. They may also be indexed by seasons.

The shipper's card is a larger size than the commodity card. It is usually about eight by five inches. It shows first at the top left the name of the customer, then below his address. At the top right are two spaces, the upper one for the name of the commodity or commodities he receives, the lower for those he ships. The remaining space on the card is ruled horizontally for the twelve months of the year, and total, and vertically for five years. Each year's space is divided into a column headed "received" and one headed "shipped." The whole picture of each shipper's business with the line each month is thus shown on these cards.

These cards are compiled in the following manner. Each freight station within the soliciting office's territory sends in daily tissue copies of every waybill, for carloads and less. Where tissues are sent for the information of the soliciting force, extra tissues should be sent for the card

record clerks. These tissues should be accompanied by copies, or statements of each incoming waybill. The number of men or boys necessary to compile this system as well as the commodity card system, depends on the volume of business and the number of cards. One system numbering over 2,500 regular cards and nearly 6,000 irregular ones is operated by four boys, three of whom are paid \$8 per week and the fourth, who supervises the work, \$12. These clerks take the waybills, lay them out in order, and then take down the cards. Attached to the back of each card is a slip. This slip is headed with the name of the customer, and there are two columns, one for incoming, the other for outgoing. The leader of the clerks takes the waybills and calls out the name of the first shipper. The boy in whose rack that card is begins hunting for it. Meanwhile the leader calls out other names for the other boys, and they hunt for their cards. The first boy now has his card, and the leader reads off the weights to him, first all the westbound weights, on all the waybills, checking each as he goes along, then on the incoming weights in the same way. The boy who has the card puts the weights down on a sheet of paper as they are read, and when he has them all the leader turns to the next boy and reads his weights, while the first boy adds up all the weights and enters them in the two columns on the slip attached to the reverse side of the cards. This process is kept up until all the weights are checked, added and written on the slips.

At the end of each month, when the last day's business has been checked off, these clerks stop checking for three or four days while they all turn to and add up the month's weights which have been entered from day to day on the slips. When each slip is added, the totals for the month

are entered in ink on the face of the card, and the record is ready.

A separate card should be kept for every shipper, large or small. There are of course many thousands whose business is not solicited or who are only occasional shippers; on the other hand, there are many who are visited regularly or occasionally by the solicitors. Duplicate cards of these shippers should be made, and filed under each solicitor's name, or under the section of the territory which he covers.

When all the cards have been compiled, each solicitor's total tonnage is compiled from the cards in his file, and then a general statement can be made for the general agent showing each solicitor's "pickings," and the total for his whole territory. He will then be able to judge whether his men are working as they should or not. He will also have a little file of his own, of those shippers whose business he solicits personally.

In addition to furnishing a line on the solicitors, these cards are indispensable to the solicitor himself. He will be able to see at a glance which of his customers are increasing their business with him and which are not, and he can use more energy where it is most needed. The cards may also be taken out by the solicitor when he calls, to show graphically to a customer how much business he is giving. There have been instances where these cards told a story the shipper himself did not realize. Some solicitors use these cards as a reference index to the shippers. They will write on the back the name of the traffic manager or other representative whom they see, and will note the dates on which they called on him. This will refresh their memory as to the length of time that has elapsed since a visit, and will also be an index to the date of their report, from which they can read everything that happened at their last call.

Many shippers, too, are so much interested in these cards that they desire copies for their own files, and in that event the solicitor will every month report to them the tonnage received and forwarded for their account during the month preceding.

Another record which the head of a soliciting office will find indispensable is a statement, daily, weekly or monthly according to circumstances, of the amount of unrouted freight given to his line by each of his connections, in return for which he will give them a copy of his statement insofar as it applies to each of them. This unrouted freight is a sort of scale;—that given should equal that received, and if the general agent is not satisfied that he is getting as much as he is giving, he must see the general agent of the other line and settle it with him. It is a hard proposition to suit everybody, for it is rarely that the total unrouted going one way will equal the total unrouted going the other way, so it will be impossible to split up just so much business in such a way as to suit all concerned. The great aim should be to see that as little freight to you as possible is unrouted, and that as much as possible FROM you is unrouted. Whenever your line receives a car or a shipment of unrouted freight the information should be immediately conveyed to the point of shipment, and the shipper induced to route his freight fully and in your care on future shipments. When this is done, it will soon be found that the amount of unrouted business you will have to divide will be greater than that which is given to you, and you can therefore negotiate with these connections for some of the business which they are now giving to your competitors.

The last word as to details of a soliciting office is in regard to expense accounts. This matter is handled in various ways. Some roads allow each solicitor a fixed

amount every month, and he can spend it as he pleases, provided he accounts for it at the end of each month. The result of this is that often the money will be spent on other than legitimate matters and charged up in various faked ways. The better way is to allow a certain limit, except in special cases, and to have the amount spent daily entered on the daily report while it is still fresh, with an itemized statement of the total at the end of the month. No line should be stingy for legitimate expenses, but, on the other hand, no one can expect a line to pay for the solicitor's private entertainment. The only way to be sure that expense accounts are accurate and reliable, is to inculcate a spirit of loyalty and honor in the whole soliciting force. Unfortunately, many solicitors seem to think it a smart trick to cheat their company through the expense account; the only remedy for this is to show these men that it is not smartness but dishonesty, and that in the end they are only cheating themselves of their most precious possession—their reputation.



## CHAPTER VII.

### THE SOLICITATION OF FREIGHT—(Continued).

- § 1. The Ideal Solicitor.
- § 2. Who to See.
- § 3. Judging Character.
- § 4. The Grafter.



## CHAPTER VII.

### THE SOLICITATION OF FREIGHT—(Continued).

#### § 1. The Ideal Solicitor.

Another definition of solicitation is the art—again the art—of selling transportation. After all, a railroad is like any big mercantile business. Its commodity is freight and passenger service, and while business would undoubtedly come to it without salesmen, it requires salesmen to extend its business and to keep pace with its competitors. And, as transportation is an invisible commodity, the solicitor must be the wireless communication between his company and the shipping public.

There are many men, some who have probably been pestered by the unideal solicitor, who think that the railroads are wasting a lot of money in employing freight solicitors. To their mind there is so much money spent when the solicitors for three or four lines are trying to get the same car, that the eventual earnings of the car are pretty well used up before it is even started. And yet, suggest to a railroad traffic official that he should give up his soliciting force, or even that there should be a general abandonment of solicitation by all lines, and he would probably ring for the police.

Can you imagine the conditions if all solicitation were abolished? If all the freight moving in this country were to move of its own accord and at its own time and on its own route? The natural consequence would be that at the

start the through routes would get all the business. A man shipping from Chicago to New York would probably ship all his freight on a through line, and the lines which had combination lines would get little. These lines, then, would seek means to get some of the business. Superior service would be of little avail, for how would the shippers know of it without solicitation or advertisement? Rate cutting might be the next expedient, but in these days when tariffs must be published on thirty days' notice, a rate war would be an impossible solution of the difficulty and all the lines would soon be compelled to seek peace and establish again the principle of competition, not through rates but through service and solicitation.

We must agree then, that solicitation is necessary—a necessary evil, if you will, but still a necessity.

The solicitor is, first of all, a salesman of his road's service, and most of the attributes of a successful salesman are to be found in his make-up. The first essential is character, for in a work which is as personal as solicitation, character is all important. No man of unworthy motives or ideals will make a successful solicitor. Honor and honesty are his watch-words.

A shipper requires honor among solicitors, and railroads insist upon it among their men. Rivalry and competition are the backbone of all trade, but if honor is lacking, competition becomes a mockery and rivalry a sham. Two solicitors may be working hard for a car, the securing of it may mean promotion for the lucky one, but woe be to him if he gains his victory by underhanded means. There have been men who would get a shipping clerk befuddled with drink, and then make out the bill of lading for him to sign, or who would bribe the agent of a connecting line to change the routing in his favor. There are men who sneak around their rivals' freight stations, and take note

of the names on the cases, or the trucks delivering freight; there are men who will obtain information from their rivals' employees under the guise of shippers and turn the information to their own advantage, but this sort of man, let us rejoice to say, is rare.

The ideal solicitor works in the open; if he can't beat out his competitor by fair means, by the power of his personality, by the strength of his road, by the speed and economy of its service, he prefers to accept defeat to obtaining a victory by dishonorable means.

Hand in hand with honor goes honesty. Not honesty in the matter of dollars and cents, that is usually a trait of any self-reliant man; but honesty of action and word. A shipper, it is our firm belief, prefers to have a truthful report, even if such report is unfavorable, than to have an untruthful one which he later finds is unreliable.

Let us quote an example from life. A large firm of flour dealers handled quantities of flour to a station on a small connecting road of a great trunk line. The interchange is made just outside a large classification yard of the trunk line, and the small road's haul is only a few miles. The engines of the trunk line push the cars from their yards to the junction point where they are turned over to the small line. Now, for some time the solicitor of the small line has been trying to increase his business with the flour people, but without much success. One day in talking to them, they tell him as follows:

"We'd be glad to give you more business if you could handle it promptly. Now it's taking us a week after we order a car to Centerville for it to get there. What is the trouble?"

"I don't know what the trouble is, but I'll find out. Centerville, you know, is only two miles from the junction,

and it only takes a few hours to get the cars to our delivery yard."

"Well, I'll tell you what the trouble is," says the flour man, "the trunk line offers you the cars within twenty-four hours after I have ordered them, but they tell me you won't take them."

"Now, Mr. Green," says the solicitor, "doesn't that sound a little strange to you? Do you think my road would pay me to solicit your business if it refused to handle it after I secured it?"

"Well, that's what the order clerk told me. What is your explanation?"

"I don't want to make any explanation till I find out. Of course, it may be our fault, but I don't think so. You know all those cars of flour are unloaded into the trunk line's warehouse, and I have an idea that there is some delay in reloading, which their man is trying to account for by shifting the blame onto our shoulders."

The explanation was exactly as the solicitor had guessed, and the result was that the flour merchant had a heart-to-heart talk with the division freight agent of the trunk line, who, being a capable official, saw to it that correct advice was given in the future. Notwithstanding this, however, the flour merchant has, and probably always will have, a feeling of distrust of anything the trunk line people tell him, while Mr. Solicitor enjoys his entire confidence, and also a larger slice of his business.

A lie never pays. If you or your road are in the wrong, say so like a man, and try to do better next time, but don't try to "pass the buck" to the other fellow so that you may have a perfect record. All men are liable to error, and the man who admits his mistakes and rectifies them, is the man respected for so doing.

The solicitor is a man of work, and, therefore, industry

is a prime qualification. The drone has no place in the game of solicitation. The most valuable solicitor is he who systematically covers his territory. If you are fonder of a comfortable chair than a mile or two of walking, you are not built for a "street man." "On the job" should be the middle name of the ideal solicitor. The old saying that "the early bird catches the worm" was never more fitly applied than in this case. Witness our friend Jones of a previous section. He was the man who got there before Smith's mind was made up, and he made it up for him. When Robinson arrived a half-hour later, Smith's car was gone as far as he was concerned. Had he been as capable as Jones, he would have recognized this at once, and bent his energies towards securing that part of the haul which Jones couldn't touch. Robinson's failing, or one of them, was his lack of industry, of making the most of every minute. If he did not have any definite idea in seeing Smith, he had better have gone to see someone else on a definite mission to get business. Passing the time of day is no part of a solicitor's job. A good solicitor never tires of his work. To him it is his life. If he does not love his work, he had better do something else, for there is nothing mechanical about solicitation. The life of a solicitor is the life of the huntsman. Freight is his quarry, big game or small, and as the true huntsman will sit for hours, cold, wet, and hungry in a blind, waiting with an eagerness that is thrilling for a shot at a duck, so a solicitor will follow his prey, watching, waiting for the time to capture the car or the package which is his sustenance. The great fascination of solicitation is its variety, variety in the kind of commodities solicited and variety in the character of those from whom business is sought.

Alertness, how necessary that is! It goes hand in hand with that "on-the-job" qualification. Our ideal solicitor

thinks nothing too small to be overlooked. A calendar on his prospect's wall may give him the name of some firm to whom his customer ships or from whom he buys. He will be quick to find an advantage in shipping his way, which will appeal to his customer; a saving in cartage to one of his stations perhaps, or a closer delivery to the consignee's plant than his competitor can give. He will know of reconsignment privileges or other advantages which his customer can use. No point of interest will escape him.

Finally, and perhaps most important is personality. A good appearance bespeaks courteous attention at the outset. A slovenly man has small chance against the neat, well groomed man of the world. Flashy clothes and a fresh manner are of no account, but polished boots and an attitude of ease are to be desired. If your first appearance is favorable, friendship and good fellowship will soon follow, and these are necessities. Above all, be courteous. Courtesy costs nothing and gains much. It is easy to imagine how much business can be engendered by appreciation of business already given, as it is to picture what is lost through a tacit acceptance of the business, as though it were your right. No one is compelled to favor you; you are in the position of a suppliant, and when your prayer is granted, the least you can do is to be grateful and to show your gratitude. A word of thanks will bring you many an added ton.

And smile! The world was made for laughter, not for sighs. Cheerfulness begets cheerfulness, even in a confirmed misanthrope. Many a man who has come to his office with an overload of care will be brought back to his proper poise, and set right for the rest of his day, by a bright and cheerful solicitor. "Put forth your right hand with a grin, and gather all the shekels in." But don't let your happy disposition lead you too far. There are limits

to all things, and the right story in the wrong place may be a sad joke before you are through. You can't jolly a man into giving you business if you haven't something more than the jolly back of you. A good story won't haul a car, nor will a well turned joke assure second morning delivery. Adapt yourself to your subject, cheer him if he needs it, laugh with him, and sympathize, but if he persists in his grouch, clear out.

To many young men who read this chapter, any warning on the subject of drinking may seem out of place, but, on the other hand, there are some who feel that a friendly glass with a shipper will promote good feeling. Nothing could be further from the truth. Drinking in business hours should be absolutely under the ban of all good solicitors. No man, no matter what his views on the subject, cares to have a solicitor call on him with a breath a mile long. Most men care even less for an invitation to "step out and slip one over." At lunch time or in the evening, a convivial glass does no harm, but moderation should be the watchword. Don't think for a minute that any self-respecting traffic manager thinks more of you because you become a good fellow to the extent of being maudlin. The reputation of being a "booze-fighter" is a poor one, and the ruin of many an otherwise capable man.

First and foremost, know your line. Know your officials well, your superiors particularly. Know whom to call upon for any information you require. It will be a great time saver if you know the proper official or clerk to communicate with when you wish to locate the whereabouts of a particular shipment; and prompt action in matters of this kind makes you more indispensable to your customers, and more valuable to your road. Learn your line by heart; that is the first lesson, and every solicitor before soliciting a pound of freight should take a trip over his

road. Nothing can create a worse impression than to be forced to express ignorance as to the delivery facilities at certain points or the sidings connecting certain plants with your line. You may know that a certain town is on your line, but if you are ignorant of the location of your road in that town, you are liable to make many a bad mistake, and vice versa, if you do know, you have a big advantage over your competitor who may not be so well posted.

Suppose for instance, several lines are competing for certain business for a town where all have stations. If, from your knowledge, you can tell the shipper exactly how far your station is from the consignee's plant, as compared with the distance from your competitor's station, you have an immense advantage to start with; and even if your station is the furthest away, you can say so frankly, but depend upon your line's service to outweigh the advantage in cartage which is your competitor's. The same is also true in your own locality, for you may be able to point out to your customer that he will save several blocks of cartage haul to your station, or, on the other hand, you may be able to say:

"You can look out of your window and see the station of the other line, while our station is half a mile away, but if you ship across the street you will save a few dollars' cartage at the expense of a day's time in transit. Now, spend a few dollars and ship at our station and you will find that your goods are arriving at their destination the day before they would if you shipped them here."

This is a potent argument, if true.

You should also refresh your memory as to your line by at least yearly trips over it. Some lines make this a requirement and it is a good one. The situation in large cities such as New York or Chicago, is constantly changing, and the tariffs do not always provide the exact infor-

mation in sufficient detail to be well understood, even with the aid of maps. The New York situation is particularly complex, owing to the large amount of lighterage and other water transportation necessary, and the only possible way an outside solicitor can gain an intelligent idea of the situation, is by a personal inspection. It is a surprising fact, but there are men stationed in New York who have never seen half of the stations or freight handling facilities of the metropolis; and even more surprising is it that they can solicit freight without such knowledge.

A knowledge of rates is also an essential. It is not at all necessary to become a walking freight tariff, but the structure of rates and the principles of rate-making and classification are the ground work, and should be familiar to the ideal solicitor. You will, once in a while, meet a man who asks you whether you can have a certain rate lowered or a certain classification changed, and if you know something about the principles of how the rate or classification is made, you will be able to discuss the matter with him intelligently and in a way to win his respect. Every question you can answer brings you one notch nearer to your prospect's heart, and you've got to have his heart to get his business.

If you are on the quest for a particular car, it is always well to post yourself beforehand as to the rate which will apply, not only via your line but by way of any differential route which there may be. Then you will not be caught off your guard if your prospect asks you if yours is the lowest rate. You will tell him that it is not, but you will explain why differentials are made, and what they represent in the way of service. Service, these days, is becoming more and more the dominant factor in solicitation. You should also be careful to ascertain whether a commodity rate applies to the business solicited, and not quote a class rate which

may lose you the business. If you do not know the rate asked for, don't guess, and do not say you'll find out and let your customer know. It may not be five minutes before your competitor walks in with the rate in his head and gets the business. Ask your customer if you can use his telephone. It may save the day for you.

Finally, know your customer's business. If he is a new customer find out something about his business before you call. Don't show off your knowledge, but at the same time don't show your ignorance by expressing surprise if a box-maker talks of strawboard. If he is an old customer you should endeavor to learn something new about his business every time you call. Never refuse an invitation to go through a plant; it is one of the most useful things you can do. You may assume that only certain raw materials are used in the manufacture of certain articles, but if you actually see them made, you will at once see possibilities for developing your business. Perhaps you'll walk through a factory where they are cutting pipe. You'll notice that they use a lot of oil. Where do they buy it? If it is bought locally, of course your interest ceases unless you can interest some out-of-town oil dealer in the business. But if it already comes from out-of-town, you will naturally try to secure it for your line. The steel shavings you also will notice. There's a by-product that is disposed of in some way. You are there to find out if it is shipped, and to get it if you can.

Thus, it will seem, there are many angles to every business that do not appear on the surface. If your customer's business is pipe, you must find out if there is not something else than the actual pipe to be either shipped out or brought in, and so in practically every business. If you pick up in one of your calls some information you cannot

immediately use, make a memorandum of it, as it may come in handy sometime in the future.

Of course, the living examples of all the combined qualities detailed above, are few and far between, but at least we can all picture the ideal we would like to be, and can strive towards that ideal with every day we live and learn.

## § 2. Who to see.

In these days of industrial efficiency almost every concern of any standing employs a traffic manager. Sharp competition has forced these concerns to seek every possible method of reducing expense and increasing the net revenue of their product. One of the largest factors in this competition is the cost of transportation. Transportation enters into everything. It is included in the cost of the machinery which operates it, in the cost of the raw material, even in the cost of shipping cases and advertising matter, and finally and most important in the cost of getting the product to the consumer. It is obvious therefore, that the industry which would reap the fullest measure of success must take thought of this transportation cost, and take deep thought, too, if they are to bring this important factor to its highest point of service.

The realization of this need has brought about the development of the industrial traffic manager.

Two factories manufacturing the same commodity are competing for the trade in a certain locality. One, old-fashioned maybe, proceeds along old-fashioned lines, and ships its product to this locality on the regular routes at the standard rates in the same packages in which the grandfathers of the present owners shipped their original goods. The goods themselves may have been modernized, their sales force may be very wide awake, but as far as transportation methods go, they live in the past.

Their competitor, on the other hand, while improving its goods, and the men who sell them, has not lost sight of the transportation feature, but employs a traffic manager, who is trained and efficient, perhaps an ex-railroad man, as many of them are. His whole time and attention is centered upon the reduction of the cost of getting the goods to the consumer. He doesn't bother about the quality of the goods; the factory looks out for that. He cares not for their sale; that is up to the sales force, but when the goods are made and sold, and ready for shipping, he takes charge of them and sees that they arrive at their destination in good condition, and at the least possible cost. So he first takes up the question of packing requirements, and uses the packages giving the lowest classification. If he can devise some new method of packing, which is not classified, he applies to the classification committee for a rating, and sees to it, if possible, that his wishes are complied with.

Next, he takes up the rate applying and seeks to find some way he can beat his competitor of the conservative methods. Perhaps there is a differential line which can handle his goods at a lower rate, but if this is so, the service is usually the reason for the differential. So if he decides on the differential route, he works with the representatives of this line to improve the service on his goods. Perhaps, though, the best service which this line can give is still not good enough to meet his competitor. Even though his goods may bring a greater net return by reason of his efforts in reducing the cost of transportation, the sales in this particular locality are not increasing, due to his competitor's goods making quicker time. There are then, two courses open to him, either to use the standard lines at a higher rate and better service, or suggest to his sales manager the establishment of a stock, or consignment at

this locality from which prompt deliveries can be made, and which stock can be replenished by way of the cheaper and slower differential line. If the particular locality is not a large enough field for the establishment of a stock of this kind, there may be some central point where such a stock can be established which will not only serve the particular locality in question, but others of a like nature.

It is apparent that if this is done, the goods will be shipped to the distribution point in carload lots, and redistributed in less carload quantities to the final destination. The traffic manager must then be familiar not only with rates from the point of origin, but from the distributing point as well. Moreover, he will at once endeavor to have established commodity rates to the distributing point. Commodity rates are, as their name implies, specific rates on certain commodities from a specific point to a specific point. They are lower than the class rates applying, and are governed largely by the volume of traffic which will be attracted by their existence. When these rates have been secured, and the service is at its highest point, the traffic manager will have justified his existence and his salary by the increased sales of his company's product and the gradual elimination of his old-fashioned competitor from the market.

What has all this to do with solicitation, you may say? Merely, that we have attempted to outline the sort of man you will want to see when you solicit the business of such a concern. For in every industry which employs a traffic manager (and they are becoming more numerous every day) he has absolute authority as to the routing of freight. The man, therefore, for the solicitor to see, is the traffic manager.

Suppose a solicitor was sent to obtain business from Smith & Co., whom should he ask to see? The chances

are that if he merely walked in and asked for the traffic manager, he would be ushered to a desk where a keen, wide-awake individual sat, surrounded by tariff files.

"Well, Mr. Jones," he would probably say, "what can I do for you?"

You would probably be at a disadvantage at once, in not being able to reply—

"Well, Mr. Brown," or whatever his name was.

It is important, therefore, that you ascertain first of all the name of the man you are going to see. This may be done in several ways. There are several directories published, giving the names and addresses of the men in charge of traffic of the largest industries. There is also the membership list of the National Industrial Traffic League, and there are also the year books of the various traffic clubs.

If by chance you cannot find the name of the concern you intend calling on in any of these various guides, you had better start somewhat in this way:

You enter the office and approach the guardian of the outer gate.

"I am Mr. Jones of the East and West Railroad. I would like to see your traffic manager."

Nine times out of ten the boy will say "You mean Mr. Brown?" but if he doesn't you may ask, "By the way, what is his name?"

If he shows surprise at your mention of traffic manager, you should explain: "I mean the man who has charge of your shipping."

And the boy will probably reply disdainfully: "Oh, you mean the shipping clerk. He's downstairs on the ground floor." Then you'll know your prospective customer has not a traffic manager—yet.

Assuming that there is a traffic manager and that his name is Brown, you'll say :

"Please take my card to Mr. Brown," and when you are ushered into his presence you'll be able to beat him to it by saying "Good morning, Mr. Brown," thereby giving him the impression at the start that you know at least who he is.

While you are talking to him, take good note of his looks and never forget them, for if you don't see him again for a year, and should suddenly meet him in the street, your calling him by name at that time will give him another favorable impression of you.

Never forget for one minute that Brown is the King of his Domain and that you are after a slice of it. First impressions are most lasting and you must make your first impression tell. Familiarity is a great mistake ; treat your man with deference, but without undue servility. He will respect you more highly if you impress him as a man of his own calibre, his mental equal, and not a mere beggar for his favor. You have come to get his business on a business basis and in no other way, and he can tell that from your manner at the start.

Show him from the beginning that you know your business, and that you believe he knows his. In doing this it is not necessary to show off your knowledge in a long oration, but by a quiet dignity, and a clear-cut explanation of why you have come and what you want. You will have, if you are wise, a memorandum of the rate and route applying on the shipment you are after, and will quote it to him at his request. You need not volunteer the information, as he probably is familiar with it in any case, and you should not assume that he is ignorant. If he asks for any information as to your line, be prepared to answer him fully.

as, if this is the first visit of one of your representatives, he will need a considerable quantity of education as to your service and facilities. Perhaps he already has a fund of this information, but if you are on your job you will be able to supply some missing link which may bind the bargain. Never let him get the idea that he knows more about your business than you do, or he will believe you are not competent and you will lose his respect, but above all, refrain from "blowing your own horn" or from giving him the impression that you think you know more about his business than he does. You are there to learn as well as teach; to absorb everything about his business which you can, but it is no part of your game to let him know you are finding out things about him.

Such then is the man you are after, and such the first steps in the chase for his business. If you have a poor memory, jot down his name and the name of the firm when you leave his office, so that the next time you call you may ask for "Mr. Brown," without a moment's hesitation. In fact do not hesitate to make full and complete memoranda of anything which will be useful on future visits.

Now, let us suppose you have been told by the haughty office boy that you really want to see the shipping clerk and that he is an inhabitant of the ground floor. You are immediately face to face with an entirely different proposition.

The shipping clerk is as mysterious an individual as you may meet in many a day. In the old-fashioned house, mentioned in the early part of this chapter, he is the be-all and end-all in the shipping line. He has charge not only of the packing, marking and carting of the shipments, but also of the routing and rating of them. As he is rarely experienced in the fine points of the traffic manager's duties, he is sometimes the cause of claims and losses to his company

through errors in packing or marking, or through overcharges in rates from misrouting or unfamiliarity with the tariffs.

We do not mean to imply that all shipping clerks are incompetent; far from it. Many of them are traffic managers in all but title, and their number is growing daily as they become more awake to the advantages of technical training and other aids to the development of their efficiency. These men not only do the broad work of the traffic manager, except as to his executive duties, but also do the ordinary work of the shipping room. Even in houses where a regular traffic manager is employed, there is a shipping clerk who attends to the detail, and who often has considerable discretion as to the initial route and the station at which the goods are to be shipped, as he is responsible for the cost of trucking, often a very large item in the cost of transportation. Some traffic managers take little thought as to the trucking cost while spending many days working for a cent a hundred pounds reduction in the freight charge. The same time spent on an analysis of trucking costs would often pay far more than the small reduction in freight rates for which he is continually striving.

This item of trucking cost then, is an excellent one to approach the shipping clerk with. If you can show him that your station is nearer to his factory than your competitor's or even if your station is further away, if you can show him that your facilities are quicker, your battle is half won. Or, if on incoming freight you can point to the width and paving of your team-tracks, or the superior service in placing cars for delivery so as to minimize delays, you have again gone far to solve the problem.

The shipping clerk is, however, a different proposition from the traffic manager. He is usually more approach-

able, more friendly, and more willing to be shown advantages which might not appeal to the better posted traffic manager. If this is the case teach him all you know of the railroad business, for the more intelligent man you have to deal with the more your proposition, if it is a good one, will appeal to him. If he is not called on regularly he may feel neglected. There are shipping clerks who favor the roads whose solicitors call on them regularly and often regardless of the service or anything else, and if the solicitor of another road shows up and endeavors to start a relationship, the shipping clerk says:

"No use in your coming around. All my business goes to the 'X. Y. Z.' "

So you will see that inconsistency is often the rule. Each case must be treated independently, and no definite mode of procedure can be prescribed. Get your man in good humor, and keep him there. Much more than in the case of the traffic manager, personality counts with the shipping clerk. Make him like you, for in you he sees your road. If he dislikes you he will work against your road. There is a certain solicitor who is a fine fellow personally, well posted, a hard worker, and will command a hearing with any traffic manager, but unfortunately, he seems to have little success with shipping clerks, and most unfortunately his route lies in a district where shipping clerks are in the majority. His fault seems to be a cock-sureness. He knows it all, and no one else knows anything. With a traffic manager, where he goes in, takes off his hat and sits down, his knowledge becomes useful, and he earns the respect of these men by his confidence. But when he walks into the shipping office with his hat on the back of his head, smoking a cigar, and hands thrust in his trousers pockets, he slaps the shipping clerk on the back, fingers his shipping orders, and begins telling the shipping clerk that his line

is the only one that can make second morning delivery in Boobville, that his stations can supply cars at any hour of the day or night, his line always answers tracers and pays claims in full within ten days after receipt, and everything and everybody connected with any other line than his is no good, and have a cigar Bill?, is it any wonder that the poor shipping clerk finds something that requires his attention in the factory.

A certain shipping clerk says of this solicitor:

"He's a perfect nuisance, and I wouldn't give his road a car if the president himself came along with him. Why every time I see him coming I go back in the packing room, and tell one of the boys out here to tell him I am busy and to come back some other day. He gets me in bad humor for the rest of the afternoon."

The answer to this problem being that his boss should transfer the solicitor to some other route where there are more traffic managers who will appreciate his good qualities.

There are times, though, when dealing either with shipping clerks, or with traffic managers, you will strike a stone wall. No matter how good your arguments and the service back of them, you are met politely, but with no results in the shape of tonnage. The only way out seems to be to go higher.

Now this is a very delicate proposition and one requiring much care. In the first place you should, in the very beginning of your acquaintance, seek to work with the highest man in charge of traffic and not with a subordinate, for if you start with the shipping clerk, and later wish to appeal to the traffic manager, you may find him lukewarm on account of your seeming neglect of the deference due his position. So, if through some misapprehension you make your first call on the shipping clerk, you should at

once ascertain from him diplomatically, of course, if he is in full charge of the traffic work, and if not, the name of the man who is. The next time you call, go to see the real head, and stop afterwards at the shipping clerk's office "on your way from Mr. Brown," so that he will not feel you are deliberately going over his head.

If, however, you reach the end of your resources and have no recourse, what can you do? If your service is satisfactory and your arguments are convincing, but from sheer obstinacy you are unable to get results, you should take the case to the higher court. If you are simply up against a situation where your competitors' service is as good as yours and your prospect expresses satisfaction and no desire to change, then you are not justified in going to the man higher up. This is a case for your own persistence, and perhaps with a little good luck by means of an error or delay on the part of your competitor, you will reap the reward of your patience.

But when you have decided that the merits of the case demand an appeal, don't rush blindly in yourself and ask for the president of the company. The chances are the great man will politely refer you to the traffic manager whom you want to beat. The proper way to solve this problem is to explain the matter fully to your immediate superior, general agent, division freight agent, or whomever he may be, and ask him to take the matter in hand. He will then in all probability go with you to see the obstinate one, not in any sense in the guise of a superior dealing with a problem with which his subordinate had failed, but as a compliment to the lofty position of the traffic manager, and with due regard for the valued business which he controls.

If he fails, as you failed, there is still an opportunity for him to appeal to the president of the company, or to get

his superior to make the appeal. The extent to which you or your superiors may go in this direction is limited only by the value of the business desired. It would be foolish on the face of it to make so much fuss about a single car unless it was particularly valuable business, but in the case of a considerable volume of tonnage it may be extremely desirable. At any rate, each case must be decided on its merits, and no general rules can be laid down which cover all cases. If you can impress your prospect with your winning personality, and if you get to the real power in the routing of the freight, you will sooner or later secure your proportion of his business.

### § 3. Judging Character.

There is probably no employment which affords a man the opportunity of meeting so many different personalities as that of the solicitor, except it be that of the traveling salesman. Even the traveling salesman will run second, because his calling is more or less standardized and the types he meets are more nearly alike than those met by the solicitor. Traffic managers, shipping clerks and other men without title, controlling the routing of traffic, are so new to the profession for the most part, that no type has yet been evolved corresponding to the purchasing agent or buyer who is the customer of the traveling salesman.

Not a day goes by when an active solicitor will not run across an entirely new character, and an entirely different set of circumstances with which he must successfully cope. And there is no finer method of broadening your own personality than to come in contact with these different types of human nature. It is the very best way in the world to purge you of your own conceit. A man may be ever so well posted, he may know his business in theory from A to Z, but if he is not successful in analyzing the character of

the men he comes in contact with, he will fail sooner or later. If your own character is as it should be, you will have nothing to fear from a corresponding analysis on the part of your subject. Your object in meeting a man for the first time is to find out what manner of man he is, so that you may adapt your line of attack to his weakness. Take our friend Robinson for example. His pal Joe Stevens was a golf-fiend, and Robinson, no doubt, played on this golf string for many a car of business. But he made his mistake with Smith in jumping at the conclusion that he, too, was interested in the game. Perhaps he would have been at another time, but if Robinson had been a better judge of character he would have felt the tense attitude at once, and would have talked strictly business.

There are many men who hold to an unwritten law that nothing should be talked of or thought of in business hours but business. It is a grave mistake to start any golf or theatre talk with this type, for, judging you by themselves, as most of us do, they jump to the conclusion that your mind is not seriously on your work. With this individual you should at once assume the attitude of worship of the great god Business. Get right to your point, finish it, and be on your way; for you will no doubt notice a sign on the wall telling you "Don't Waste Your Time Here. Our Time is Valuable."

Again, perhaps, you'll meet a man whose mission in life seems to be to keep away from the subject of business. When you enter his office, he'll probably start at once to tell you some experience on the links or tennis courts, and, if you start to get down to brass tacks, will politely intimate that your presence is no longer required. This type is a hard one to master, but it can be done. Fall in with his mood, and swap a story or two with him. Then remark casually, "By the way, I hear you've got a car for Cincin-

nati. Of course we're going to get that." If he says "Yes," your task is done and you can stay longer or ease off gradually, as your experience will dictate. If he says, "Why, I was going to route that against you," you can say "I didn't think that of you. I thought you remembered your old friends," or some similar remark. By carrying on the conversation in this style, you will give him the impression that you are not talking shop, but that the business matter is incidental to your conversation about golf or tennis, and he will be all the more favorably influenced by your visit after you have gone.

Did you ever meet the kicker? If you haven't met him in your railroad life, you've met him somewhere else, for he flourishes in all climates. One in particular comes to mind. He is never satisfied with anything. He is a large shipper making two or three cars a day, sometimes more, and his traffic requires, or at least he says it requires, the largest cars—fifty-footers, or automobile cars. Now these cars, as everyone knows, are not as numerous as the shells on the shore, but our friend insists on being supplied with his requirements at any moment. If he is not, he is at once on the wire with a torrent of complaint. He will call up every official up to the vice-president to tell of his grievances, and his traffic is so valuable that they listen to him and commiserate with him. Then the next day the solicitor goes around to see him and asks how everything is.

"Rotten," is the reply, "why yesterday I sent a truck down to load that car for Detroit, and there was no car there. He had to stand around for half an hour, till I called up your vice-president, and he made them step around and haul a car in for us from the yard. The trouble with you fellows is, you don't appreciate my business. I'll have to give it to another road."

Perhaps he does, and it's not long before the solicitor for this road hears the same tale of woe. "No service. Rotten treatment. You don't appreciate me," these are his catch-words. Once in a great while you may catch this fellow in a happy mood. You ask him how things are going and he'll say "Pretty fair." That's your cue to exit, for if you stay five minutes longer, he will have had time to think of all the kicks he has been accumulating since your last visit. The only way to manage this gentleman is to give him no cause for complaint, but that is well-nigh impossible, for the equipment needed is not always easy to obtain, and there are times when the best of intentions will fail. However, if you lose a car or two, you will have the satisfaction of knowing that your competitor will likewise fail to please, and that then Mr. Kicker will return to you.

Old windbags is another type. He was born with a Victor Phonograph inside him, with a perpetual motion attachment. All you've got to do is to press the button, and the great difficulty is to know which button not to press. One day you may start on business and that may start him off on a long oration which may last half an hour or more. All you can do is to say "Yes, sir," "No, sir," like a schoolboy. Next time you call you remember your enforced incarceration for the best part of the morning, and so you touch on the weather, but again you've miscalculated, and the machine starts buzzing again. As a matter of fact, it usually happens that no matter what you mention will set him going. The only thing to do is to keep awake, and wait him out. He'll run out of breath some time.

You'll strike some strange foreigners some times. Italians are queer customers. They are usually the whole business themselves. An Italian flour dealer in particular,

I know. This gentleman has no office except his hat, and can only be found at his flat in a garlic-saturated tenement between twelve and one. I called there one day, with one of my solicitors, to ask him to sign a petition to the Public Service Commission in our behalf. He greeted us effusively, and invited us into his dining room, where we stated our errand. The old gentleman could talk and understand English, after a fashion, but could not read it, and was loath to sign a paper whose nature he did not know at first hand. So he called up his daughter from the kitchen below, a dark-eyed beauty of sunny Italy, who, as a diploma on the wall testified, had graduated from one of the Public Schools. She read over the petition, translated it to her father, who signed it at once. He then spoke some words in his native tongue to the girl who forthwith disappeared. We picked up our hats and thanked him for his courtesy, but he bade us stay, and in a few seconds his daughter reappeared, bearing a tray with a decanter of red wine and three glasses. We thereupon were forced to imbibe some of this strange liquor, which tasted like hair oil, and after our healths were mutually drunk, we were permitted to depart.

It has often seemed that in districts where there are many Italian or Hebrew customers, a solicitor of the same nationality, speaking the language, could bring about wonderful results.

These are but a few examples, extremes perhaps, of the types a solicitor will meet in his daily work. The point is to gauge your man correctly. At your first visit you can probably do no more than this. Keep your eyes and ears open, take note of his peculiarities, his likes and dislikes and cater to them. A chance word may put you on the right track.

When you enter a strange office, first of all look your

man over carefully. Take note of his appearance, remember his face. Then while you are talking to him, or he is talking to you, glance around his office. What pictures has he on his wall? Has he maps of your competitors? That may give you an idea as to what line he is in the habit of using. Has he pictures of his own business? That may tell you whether he knows the manufacturing end or the selling end, or whether the pictures are there because they decorate the wall. Has he pictures of his wife or children on his desk? That may furnish an opening wedge if you, too, are a family man. Has he pictures of sporting scenes or has he on his desk catalogues or club books which will give you a line on some hobby of his which you may use to create a common interest? Has he on his desk or on his wall blotters or calendars bearing the name of some firm to whom he ships or from whom he receives goods? This will give you a useful hint as to a prospective car of freight.

And all the time he is talking to you, listen to every word, and the manner of his utterance. Note his line of thought, his reasoning. Is he brusque and to the point, or jolly, or uninformed? Do not jump to conclusions hurriedly; many a man will play the *ignoramus* to fool you, and to feel you out. It is likely that all the time you are studying him he is also studying you. You must therefore impress him favorably by your attention, your courtesy and your adaptability. That is the main point, your adaptability, for no sooner have you found his keynote than you must strike the accompanying chord.

Your first visit will be one of testing and feeling out. Get your business done in the most direct and appealing way, and then, if you can consistently do so, stay on awhile to get your bearings further.

When you have left, you will have a complete mental catalogue of your man, and even though you secured no

business at your first attempt, you have found your avenue of approach, and you will have an easier time at your next call, as you now should know what will appeal to your customer the most.

A good memory is essential in this regard, but if your memory is apt to fail you, write out a few notes about your man to guide you when you next call. Then before entering his office, you can glance at this memorandum or card-record, and refresh your memory, and plan your attack along the lines determined upon by your previous interview.

Here is a sample of such a record:

"Atlantic Lumber Co.—S. T. Moore, T. M., deals in lumber, shingles, sash, trim, etc. Receives from points in Virginia and North Carolina, occasionally Adirondack and Northwestern lumber. Sash and trim from points in Pennsylvania. Harrisburg Moulding Co. blotter on desk. Talks very fast, and gets down to business at once. Belongs to Hollywood Golf Club, lives in Wildcliff Park."

With the above your poor memory will be at once awakened to the possibilities of Mr. Moore's character and the chances of securing his business.

After you have made your first impression, and have gotten your impression of your subject, it should be your object to get on the friendliest possible terms with him as speedily as his characteristics, as you have judged them, will permit. You will not, naturally, force attentions on a man who does not desire them, and there are many who wish to be approached only in a business way, and who do not care for your attentions outside of the office. Most men though, are approachable on other than business subjects, and if so, it is your task to develop that side, as an aid to obtaining their traffic. I do not mean to advise you to pretend deep affection, or to be insincere, but you should

forget dislikes and treat the man as a friend and a good fellow until he proves to be otherwise.

If you find he is a devotee of a game you play, get him out with you some day, and give him a good time. Make him feel that you like him for himself alone and not for his position and make it an unbreakable rule never to talk business to him on one of these occasions, except, of course, if he brings it up; and even then get away from it as quickly as possible. The more you can develop the idea in his mind that he personally is what you are after, and not his business, the quicker he will see the advantage of giving you his business. There is probably more freight routed purely on the basis of friendship than in any other way.

As an aid to this development of friendship, or fellowship, there is no better meeting ground than a traffic club. There is hardly a railroad center of any importance that has not one of these organizations. They are founded and thrive on the principle of bringing together the representatives of the shipper and the carrier in an atmosphere of informality and good-fellowship, away from the hurry and the efficiency of the office.

Underlying this is also the serious motive of promoting the mutual interests of shipper and carrier by showing to each how necessary the other is, and how dependent each is on the other. The shipper must have transportation to market his commodity, and the carrier must have tonnage to exist. How foolish and ridiculous it is then for either to feel that the other is his enemy. Shipper and carrier cannot always agree on everything; the carrier may feel that an increase in the cost of service justifies a higher rate, the shipper may believe his product and his marketing conditions will not permit him to pay a higher rate; but if both shipper and carrier are actuated by sincere motives, and

have each other's respect, the matter is easily settled without detriment to anyone.

There is no question but that this community of interest has been fostered more than in any other way through the growth of these traffic clubs. Before their inception, ten years ago or so, a carrier had only to suggest an increased rate or a different method of doing business, to arouse a storm of criticism from every shipper, not all with any real opposition, but mostly on general principles. How different was the attitude of the shipping public in the last great rate increase agitation—the 5% case. The railroads had plainly demonstrated their need for increased revenue, and the shippers, instead of blindly opposing them, came forward and agreed that while, in some instances, the proposed increases would necessitate some readjustment in their business, they appreciated the fact that they needed the railroads, and that the railroads which they needed could not exist on the revenues they were then receiving.

It is important, in fact essential, that every solicitor should join the traffic club in his city. If there is none, start one, it will be well worth the time and trouble. The dues in most of these clubs are nominal—ten to twenty-five dollars, and if you are a regular attendant at the meetings and various gatherings, you will get back in entertainment and instruction alone, more than the amount of your dues. Most companies pay the dues of their representatives in the various traffic clubs, as the higher officials realize the importance of them, and the larger clubs, such as the New York and Chicago clubs number many railroad and industrial presidents among their members.

Some of these clubs have regular clubrooms or clubhouses, where you can meet your friends and customers for lunch or dinner. All have regular monthly meetings during the winter season at which instructive talks are

given by the members, or by distinguished public men, and a light entertainment at the close. There are also summer outings, and some have amateur theatrical performances, all without cost to the members.

When you go to the meetings you will see there not only the representatives of the shippers you are in the habit of calling on, but many others whom you will meet in an informal way, and to whom you may be able to be of service some day. Many a time you will find that some fellow member of your traffic club will call on you when he is in difficulties, even though you have never supposed that he could possibly use your line.

Take an interest in the affairs of the club. Get on its committees, or get up at some of the meetings and say something just to let yourself be seen. Do not brazenly advertise yourself or your line, but do not be the blushing, modest violet that lives and dies unseen. That will never get you any business, and that, after all, is the primary object of your joining the club. By getting to be prominent in the club's affairs, you are getting known to more and more of your fellow members, so that they will not say—"Why, who is the representative of the East and West road?" But "Yes, that's Jim Blake, he works for the East and West." Then, one fine day, this gentleman will find some use for the East and West, he'll remember you as one of the reception committee of the traffic club, and will call on you to help him rather than on your competitor who either does not belong, or else is just a member, nothing more.

It is unfortunate that more real constructive work is not done at these traffic clubs. There is a great power for good in such organizations along the lines of education for both shippers and carriers, but their true mission appears

to have been lost in the development of the social side of these organizations.

While the traffic club is valuable as a meeting place, and as a place for attracting attention to yourself, or to your line, it should never be used as a place for open solicitation. When you enter the club doors, as when you enter the golf club, leave business behind. If you get known as a man who only comes to the traffic club to solicit freight, you will soon be shunned, and you will lose more than you will gain. Of course if you know a man very well, and know that he is anxious for some news of a certain car, and you have the information he wants, he will bless you for giving it to him any time or any place, but you should never walk up to a man and say "Hello, Mr. Smith. I want to talk to you about that car for Denver." You'll get a black eye if you do that.

At the traffic club you get an entirely new view of your customer's character. You see him with the business veneer thrown aside, and as he actually is; you catch him off his guard, and you secure many valuable hints for future use. At the same time you impress him with the away-from-the-office side of your character, and develop with him a feeling of mutual liking and fellowship, which will help you more than anything else to get that traffic which is always your ultimate goal.

#### § 4. The Grafter.

In carrying out the principles of judging character, laid down in the preceding chapter, you will no doubt some time or other run across a fellow whom it is impossible to classify into any of the divisions into which you have placed your former acquaintances. And yet he is present in all walks of life, the man who expects something for nothing—the grafter.

His besetting sin manifests itself in many ways, from the simple graft of a free cigar to the higher graft of free transportation. A few reminiscences will illustrate:

Here we meet a gentleman—if such you can call him—the proprietor of a flourishing business in scrap leather. This merchant shipped a car of his commodity one day to a large fertilizer company, and, unfortunately, at the time the car arrived there was a strike at their works, which lasted for some weeks. The car was meanwhile standing on their siding awaiting delivery and piling up car-service. At the end of the strike the fertilizer company found that the car had accumulated twenty-eight dollars car-service, and, as the contents were not worth over fifty dollars, they refused to accept the car. The railroad agent promptly wired back to the shipping point for disposition and the agent at that point took it up with our grafter friend. During the month that had elapsed, the price of his commodity had risen, and, figuring that he would only have to pay the freight charges in both directions, he at once ordered the car returned to him. When it arrived shortly afterwards he found that, in addition to the freight charges he had figured on, he would have to pay the twenty-eight dollars car-service which had accrued at the fertilizer plant. That was something he had not bargained for, and he immediately began his grafting tactics. He first approached the station agent, and asked him to deliver the car to him without collecting any charges. The agent was too wise for that. He then offered to pay the freight charges, and “adjust” the car-service afterward. Nothing doing, and the agent informed him that three dollars car-service had now accrued at his station since the car had been returned. Full of wrath at this news, Mr. Grafter called upon Mr. Solicitor, who

had obtained the car from him for his line at the time it first moved.

"If you don't get that car-service taken off, I'll never give you another car," was his argument.

In vain the solicitor asked him to save further car-service and take delivery and pay all charges, and adjust the overcharge, if there was any, later.

"No, sir!" answered Mr. Grafters, "I'll take it up with your boss," evidently believing he would throw such a scare into the poor young man that he would help him out. But the poor young man stood firm. So the case was taken up to the general freight agent, who also advised him to take delivery of the car. Mr. Grafters began to think he would do so, until he found that the car service now amounted to eighteen dollars. Would he pay this? Never, he declared and took the case to the traffic manager. The traffic manager promised to look into it, and there being no one else but the president to whom he could appeal, Mr. Grafters decided to let him do so, fully confident that the value of his business would, in the end, relieve him of the payment of any car-service. The traffic manager then started his investigation, followed the various movements of the car, and the application of the various charges, and decided that all the charges were correct. Mr. Grafters, as you can well imagine, was disappointed and he was something else again when he called up the station agent and found that he would now have to pay thirty-two dollars car-service, in addition to the previous charges of twenty-seven dollars freight and twenty-eight dollars car-service at the fertilizer plant. However, he had learned one lesson, and that was that car-service keeps right on growing while you are arguing, so he wrote out a check to the railroad for eighty-seven

dollars to regain possession of a car of scrap leather which he could not sell for more than fifty dollars.

He never got over that thirty-seven dollar loss. The solicitor never called upon him without hearing his tale of woe, and he never gave the solicitor another pound of freight. In vain the solicitor pleaded with him, the answer always was:

"You get me a refund of that money, and I'll give you a car."

For three years he stuck to his determination, but at last the solicitor had his chance to grin. The competing line got involved in a freight congestion, and had to embargo some commodities, among them scrap leather. And so Mr. Grafter meekly returned to his old favorite, and the chances are he will stay there for some time to come.

There is another specimen of the species "grafter," who also is a pest on the subject of car-service, but in a different way. This fellow uses his business not as a threat, as in the case of the preceding example, but as an excuse. Instead of saying, "I will not give you any more business if you do not do thus and so," he says:

"Now, Mr. Solicitor, you've been coming here for a long while asking for my business, and I've been treating you well, haven't I? I've given you every car I possibly could. Now, last week I had a car come in, and our trucks were so busy on city business and shipping, that it was simply impossible to send them down for that car. And now they go down today, and they want us to pay a dollar car-service before we start to unload. I paid it of course (he knew he'd have to) to save argument, but I don't think it's exactly fair, do you? Your people don't seem to know how to reciprocate in a matter of this kind. Here they've been getting thousands of dollars worth of freight out of me, and now they come along on a technicality and soak

me with car-service. Oh, I'm not disputing its correctness. I know all about the tariffs and the regulations of the Interstate Commerce Commission, but it seems as though this once they might have forgotten such a small amount as a dollar, don't you? What, you think it's all right, do you? Well I thought you would show some appreciation of my business, even if your agent don't. Try to fix it up for me, won't you?"

No use to argue or expostulate with this gentleman. He knows he's in the wrong, he realizes as he says, that your tariffs cannot be ignored, and yet he appeals to you on the score of reciprocity and appreciation as though that had anything to do with the case. The only thing you can do is to ask him to send the bill to you and you will investigate it. Then, when your investigation shows that the charge is legitimate, you will, from the security of your office, drop him a nice little note, telling him that the charge has been properly assessed, and that therefore, you regret extremely your inability to have any reduction made. He will probably have forgotten the whole matter before your next call on him.

Another nuisance in the grafting profession, if it can be dignified by such a name, is the man who is always trying to have you use your influence to obtain a position for some needy relative or other henchman. It matters not that the man has no qualifications for any position in the railroad world, or that there may be no position of any kind open; he will insist just the same that you find a position for his friend. Again the arguments of the value of his business, and the favor he is doing you personally by using your line, are brought to the fore. Perhaps they are not actually mentioned as arguments, but they are always hinted at in an indirect way, so that you may

quietly take the hint, and think well before you run the risk of offending so powerful a man.

Occasionally you may remember that there may be a humble position open at one of your stations.

"What kind of a job does your friend want?" you will ask.

"Anything at all. He don't care what kind of a job it is, so long as it's in the railroad business. He wants some experience, that's all. Anything will do."

So you get the friend's name, and give Mr. Grafter the name and address of your agent who may have "anything at all to do." A few days later a gentleman with a fur overcoat and a diamond pin in his tie walks in upon your agent and discloses himself as the man who "wants railroad experience."

The job which is open is that of a checker, which no doubt carries a considerable amount of experience, and also a modicum of hardship and a comparatively small compensation. So it is with some trepidation that the conditions are set forth to this prosperous-looking applicant.

"Well, that's all right," he replies, "I like work in the open air, and I'm pretty husky too. What's the salary?"

"Twelve dollars a week."

"Twelve dollars a week!" exclaims the husky gentleman, "why I couldn't think of taking a job at less than twenty-five."

"Our chief clerk is the only man at this station, except myself, who gets as much as that," says the agent, and the man who will take "anything at all" departs in search of an easier mark.

Then we have to deal with the grafter who is looking for any possible means of "stinging" the railroad in order to reduce his transportation expense. Of course, he would

not think of putting in a fraudulent claim, but if he has the slightest pretext for making a claim, he does so, and usually does not attempt to make the amount any smaller than possible. One of this tribe recently ordered a car for forwarding a shipment of laundry-tubs. The car was ordered for the following morning, and the clerk who took the order promised that the car would be ready. As it happened, some empties which were expected to arrive at the station in question did not turn up, and when the trucks with the tubs arrived in the morning, there was no empty ready. The truckman immediately went to the yard-clerk and told him the facts. The yard-clerk looked over his list, and found a car on a certain track which was nearly empty. He put a force of men on this car, had the remainder of its contents removed to the freight house, and, immediately the car was ready reported the fact to the truckman. The whole time consumed was not over half an hour.

It was not many days afterward that the solicitor received in the mail a bill from this concern for \$11.00, with a request that he see that it was paid without delay. The only information given was that it represented the loss of time in loading the car referred to. The solicitor at once investigated and found the facts as detailed above, and then called upon the tub concern to explain.

He got a chilly reception when his first words indicated that his report was not in their favor. His story was characterized as a tissue of lies, and the true facts were set forth to be that the car was not given to them until noon, and, as a consequence, the trucks instead of making two trips in the day, could only make one, and that the car, therefore, took two days to load when it should have taken one.

The solicitor could only argue that, even if the car had

not been delivered to them until noon, and the charge was in other respects in order, the delay, even if as much as five hours, was worth nowhere near as much as eleven dollars.

"Well, take the bill back with you," was the answer, "and take it up with your boss, and I'll expect a check for it within a week."

Of course, the boss could do nothing, and would do nothing to meet this sort of proposition, and promptly sat down and wrote Mr. Gafter declining his bill. And Mr. Gafter replied as follows:

"After the visit of your representative, questioning the validity of our bill, we decided to try out the R. & S. Railroad on our shipments. They have treated us with great courtesy, and we have had no occasion to complain of delays to our trucks in their yards, so we have decided to continue shipping our goods over their line indefinitely."

Again, the threat of business to be bestowed or taken away.

However, there are still some points which the R. & S. cannot reach, and others where the R. & S. service is not up to the standard, so Mr. Gafter finds, much against his will, that he is still compelled to favor the discourteous and unbluffable line with the larger part of his valuable tonnage.

Last, but not least, is the versatile grafter. This being does not confine himself to threats of taking away his business, to hints of refund of car-service, or to attempts to place his pals or to collect unjust claims, as a reciprocal right. He does all of these things, and more besides. He is the personification of graft. Graft dominates his every motive. If you would do business with this creature, you must give him something first. A cigar may obtain you a 500-pound package, a couple of drinks may land you a ton,

a lunch or dinner may give you a car, and if you follow it up with the theatre afterward, you may get two or three cars, but for any continued success with his business you must be continually entertaining him in some manner or other. For it is as sure as fate that if you don't your competitor will, and you'll lose just the amount of business your competitor's entertainment is worth. You have no chance to appeal to him on the basis of rates, service or anything else, the only way to his heart is through your pocket-book. You cannot give him one grand time and expect to satisfy him for a week or a month. It may satisfy him till your competitor comes along and reminds him of his existence, by the simple process of providing something free. You may even go as far as to invite him to your house, but if you do this once it will probably be the only time, for your wife will see at once what a despicable creature he is, and refuse to allow him within her doors again.

This type of grafter joins every traffic club he can, and he never misses a meeting. It would be against his principles, such as they are, to neglect any opportunity for getting the worth of his money, or his company's money more probably. He uses the traffic clubs for another purpose, too, to make more acquaintances who will "fall" for his grafting tactics. He is the curse of the traffic profession and is usually despised by all who know him, and even by those who are so foolish as to succumb to his wiles.

The more business such a man controls, the harder he is to deal with. If his business is really valuable, and he really has the routing of it, the pleasing of him is almost impossible without the loss of your self-respect. There are times, however, when this arch-grafter uses the power of his business to get everything he can for himself, while as a matter of fact, he has actually no control of the routing

of his company's business, or at least, of a very small portion of it. He takes very good care, however, to keep the true facts in this regard hidden, and is a marvel at deception in the way of calling attention to business which has moved over your line, or in the way of lengthy explanations of why a car which he had promised you had gone to a competitor.

The solicitor who respects himself as a man, has little regard for a grafter, simple or complex, and it is often a real problem to know how to keep the good will of these men, and at the same time to keep your opinion of yourself from suffering a jolt. With the simple one-track grafter, it is usually easy to decline to be taken in, for sooner or later, if you do, you will be put in a very uncomfortable position. You should never openly offend, but if you are sure you are right, you should be firm in your refusal to be made a party to any tricks of that kind. If you should be so foolish as to try to save trouble by paying a dollar car-service out of your own pocket, you are guilty of absolute dishonesty to your company and yourself, and no one will know it better than the grafter you have humored. He knows the charge was a correct one, and that your company would not refund it, and he will at once know that you have taken it upon yourself, and have swallowed his bait. Forever after, you are his slave.

The solution to these problems is simple and apparent, but the problem of satisfying the A No. 1 grafter is a tough one. Like the simple grafter, this one will be your master if you once fall for his wiles. One dinner or lunch with the avowed intent of getting business will put you completely in his power. There are three possibilities open to you in dealing with this fellow. First, never allow him to feel that you consider his weapon at all potent. Don't suggest

lunch, don't offer him a drink, don't even give him a cigar except on an occasion where you'd offer one to any one else, and never accompany the offer with any reference to business to be given. Treat him first to last upon a business basis. There is the chance that among all the "suckers" he is accustomed to, he will find you a pleasant contrast, and favor you for this reason. If he is so far gone in his chosen path that nothing but graft appeals to him, you have the second alternative, and that is to try and secure a general agreement among your competitors that they will decline to be his tools any longer. They will probably welcome the suggestion as a relief from the constant drain upon their expense accounts, if for no other reason, and Mr. Grafters will find that as no one will give him graft, he will have to give business on a business basis. If this fails, or if your competitors are not as self-respecting as yourself, the last resort is to eliminate him. This can only be done by the appeal to the "man higher up," as described previously. As mentioned there, this appeal should only be used in cases where the business is worth it, and if the business is very large and you can secure it in no way except at the cost of your calibre as a man, it is certainly worth while for your superiors, even your president to appeal to the president of the grafter's company and explain the whole matter to him fully. If his employer is the man he naturally will be, at the head of a large corporation, he will discharge friend grafter, or at least make him understand that his grafting days are at an end.

It is pleasant to note here that while the types mentioned above may be found in all walks of life, there are not many of them engaged in the traffic profession, whose nature itself is such as to weed out quickly the undesirable

types. Where the comradeship is so fine, and the standards of honor so high as they are between the intelligent representative of the shipper and the well-trained representative of the carrier, it would be strange if these misbegotten grafters could flourish.

## CHAPTER VIII.

### THE SOLICITATION OF FREIGHT—(Continued).

- § 1. What to Talk About.
- § 2. How Long to Stay.
- § 3. Personal Service.
- § 4. Remedying Complaints.



## CHAPTER VIII.

### THE SOLICITATION OF FREIGHT—(Continued).

#### § 1. What to talk about.

We will imagine that you have now so far progressed in your quest for business that you have found the man to talk to about it, have entered his presence, and have spent a few preliminary moments in looking him over, and taking a mental picture of the kind of man he is, and what is the vulnerable point at which he may be successfully attacked.

Having done this, you are ready to start on your actual argument for the purpose of convincing him that he should route his shipments over your line, so you naturally wish to know what to talk about, what arguments are most convincing.

The argument that convinces most men in all lines of business, railroad or mercantile or manufacturing, is the reduction of expense, saving them money. Nothing so appeals to the average man as the opportunity to get something he is now paying two dollars for, for a dollar and ninety-nine cents.

Some years ago before the passage of the Hepburn Act, and in some notable instances after, this bidding for business by reducing rates was about the only argument that was used. The older generation of freight solicitors remember well how they would approach a man to get business.

"Good morning, Mr. Morton. I see you're moving a car to Omaha, today."

"Yes, Williams, what's your rate?"

"A dollar ten."

"Too much. Why the W. P. quotes me better than that."

"Well, I'll make a discount."

"How much?"

"Three cents a hundred."

"No, no. Make it five."

"Can't be done."

"Well, so long then."

"Now here's a proposition, Mr. Morton. I'll take off four if you'll close with me now."

"Make it four and a half and I'll go you."

"Done."

This sort of conversation reminds you, doesn't it, of some of the Potash & Perlmutter stories, except for the lack of accent? The similarity lies in the fact that both stories are of bargaining. It was the spirit of the day. In those days no one expected to get what they asked for any commodity, be it shoes or railroad rates. You asked a price about ten per cent more than you figured on selling at, and your customer offered about ten per cent less than he expected to pay, and you both gradually drew together until the article was sold at the price you had both mentally agreed on before.

In the railroad world, where tariffs had to be published, this bargaining was a ticklish matter. If you published a rate of a dollar ten to Omaha it was for the benefit of your competitors, and you expected to reduce it by as little as might be necessary to get the business. Morton might accept a four and one-half cent reduction, while Richards would not be satisfied with less than ten cents off. So in

order to have every rate appear the same on the surface, the property was billed out at the published rate, and at the end of the month Mr. Morton and Mr. Richards got checks for the amount of their discounts, or to use the uglier term—rebates.

These rebates, we are all thankful, have long ago been abolished, with the other bargaining methods of selling in vogue in the nineteenth century. Nowadays, when you go into a store and see a shirt you want with a price on it, you no longer figure that the merchant has put the price there to be reduced, you no longer feel it necessary to offer a lower price for the shirt; if the price tag meets your ideas of the value of the shirt to you, you buy it and pay the printed price. So it is with freight rates. They are all published in tariffs filed with the Interstate Commerce Commission. These tariffs are open to your inspection at any time, and are available thirty days before they become effective. When you are ready to ship your goods, you pay the published rate. You do not expect a rebate, you do not expect the solicitor to offer it.

Therefore, the old argument of price cutting no longer holds force, but at the same time there are many ways in which the actual published rates may be manipulated for the benefit of your line in obtaining the business solicited.

It is not the purpose here to go into the theory of the structure of rates in detail. This theory should be studied carefully by anyone who desires to be an expert solicitor. There are, as is well known two general classes of rates—class and commodity. When endeavoring to solicit a certain car or a certain class of tonnage, you should carefully ascertain whether any commodity rates apply via your line, and be prepared to quote them as an argument with your prospect. It may very well be that your line has a commodity rate in effect which your competitor has

not, and other things being equal, this lower rate should secure you the traffic.

There are also what are known as standard and differential rates. Theoretically, differential rates are rates which are made to equalize certain competitive conditions. Standard rates are all-rail rates between certain points via certain routes. There are other routes in which a certain portion of the haul is by water, or other routes where the mileage is so much greater that the service is not as good as that of the standard lines. Freight rates by these routes are sometimes lower than the standard rates, in order that these lines may secure a portion of the traffic by reason of their lower rates which they would not be able to do if they were forced to compete with the standard lines on an equal rate basis. There have been cases where a line established a differential rate basis and then has managed to improve the service to such an extent that shippers were able to make the same time as by the standard routes, and at the lower rates. The standard lines immediately negotiated with the differential line with the result that standard rates were established on this line and the differential ceased to exist.

There are also points to which no through rates are in effect and the total rate is the sum of two or more local rates. It is well to be posted in cases of this kind as to the various junction points through which the final destination can be reached and the rates applying through each junction or gate-way. The well-informed traffic manager will probably have all this data, but you should be ready to discuss it with him in any case, as it is sure to give him a good impression of your ability and knowledge.

When you represent a differential line, you have the advantage which any salesman has who can offer a lower price for his goods. You should use this argument to the

utmost, pointing out the difference to various points between your rates and the standard rates, and emphasizing the amount of money which can be saved by using your line on a certain class of business in the course of a year. Especially valuable is this argument with the traffic manager who ships goods to a stock or consignment point for distribution. This business is usually large and runs in heavy carloads, so that the saving is considerable. If, on the other hand, you represent a standard line in competition with a differential line, your main argument cannot be rates. You will be in the position of asking a man to pay more to ship your way than he would have to pay to ship another way, and to persuade him to this course, your line must have something of value to give in return for the higher charge.

That something of value is service. Service is your chief weapon when working in competition with a differential rate, and it is your only one in working in competition with another standard line. Where the rates via all standard lines are equal, your service is the one and only factor.

Service is a large word, and covers a multitude of features. The first and most important feature is time. All freight trains are now run on schedule, like passenger trains, and though they are subject to delays, as are passenger trains, the line which solicits freight on the basis of service is sure to see to it that their freight schedules are maintained as near perfect as possible. The trains are made up according to the routing, the destinations and the contents of the cars, and you should provide yourself with this information so that you will be able to tell your prospect exactly what time he may expect. If his commodity is furniture, his car will probably move in a different train than a car of structural steel, or a car of fruit or

other perishable freight, which will move in a high class or manifest train. By referring to your schedule you will be able to tell just what class of train will carry the freight in question. Then again a car routed over the A. & B. R. R. will move in a different train from one routed over the C. & D. R. R., and one going to the lake division of the C. & D. will probably move in a different train from one going to the mountain division. All of these facts being known, your schedule will inform you that a car of furniture for a point on the lake division of the C. & D. will move from the point of shipment in train 86 which is due to leave at 11:40 P. M. and to reach the junction of the C. & D. at 1:00 P. M. the following day. If the destination is an important city, you will probably find that your schedule shows not only the time the car will be delivered to the C. & D. but also the train number of the C. & D. which connects with your train 86 and the time of arrival at destination. Most railroads furnish their solicitors with printed cards showing the time of arrival at various important cities on their lines or those of their connections. If your line does so, obtain a supply and distribute them to your customers. They will give useful information, and at the same time will be a constant reminder of your road and its service.

If you are sure of your ground and are positive as to the number of the train which will take a particular car, it is advisable to ask your customer to mark on his shipping papers "Train 86" or whatever it is. This will give him a great notion of the importance of his freight, as it is likely to make him feel that the train is run for his special benefit. But unless you are sure, don't tell him to do this, as you may by mistake give him the number of some way-freight, and the trainmaster, not knowing but that there is some special reason for doing so, will put the car in the

slow train specified and utterly destroy all you had planned for.

Another great factor in service is the facilities for the receipt of freight, and for its delivery at destination. Are your freight houses large and well arranged; are your team tracks wide, well-paved, and without grade? If so you have another effective argument. If your agents are well-informed and have a capable staff, that is also a point to be used.

The sidings on your line are another factor. If the shipment you are after can be delivered to a factory or warehouse on your tracks, so much the better, it will save cartage.

Cartage! There's a factor that is often overlooked by many a solicitor. And it is one of the most important factors. In a big city such as New York, Chicago or Philadelphia, the cartage rate to some stations is sometimes as large as the freight rate to many local points. The difference in cartage to your station and that of your competitor is often the deciding factor in securing the business, for if your rates and services are equal, the cartage rate is the only way in which a saving may be made.

A large firm in New York estimates the annual saving in cartage which they made by moving their factory to a location on a siding to be \$125,000.00. This is certainly not to be sneered at. Savings almost as large can be made by many other firms by merely changing the shipping point. Suppose your competitor's stations are inadequate to handle their business at certain times of the day. There will of necessity be a long line of trucks waiting at their station. Take a camera along some day and get a picture of your prospect's trucks standing in line, and then take one at your own station where the trucks are unloaded

promptly (if they are) and show them both to him the next time you call. It is bound to create an impression. Illustrate the location of your stations by maps, and point out the shorter distance to your station compared with that of your competitor's. Obtain cartage rates from some truckmen showing the rates to your station as compared with your competitor's.

The same facts hold good on the delivery end, only with more effect, for while your customer may be presumed to know the situation of the various freight stations in your town, he is probably not familiar with these facts in a distant city, and if you can point out to him your advantageous location in that city with respect to his customer's plant, the cartage rates to the plant from your station, the accessibility and convenience of your delivery facilities, all these things will be added factors in your securing the business.

If your customer is a shipper of less-carload freight, these advantages will also appeal to him, and besides there is greater opportunity for your service to excel that of your competitor. There is first, the handling at your freight station. Have you always a sufficient force of laborers on hand to handle his freight? Is your platform so built that there is a very short distance between his truck and the car, or must his package be trucked long distances on hand trucks? Are his teams given space at once, or do they have to wait in line for some time? Are your men careful to avoid damage in loading his freight? Does your record of handling this class of freight show that few claims are caused by your loading? Are your checkers competent, or do they often load shipments in the wrong cars, occasioning delay and possible loss of the shipment? Are your transfer stations well equipped to

transfer freight in the shortest possible time, and with the least chance for damage or misrouting?

Finally, your "layout." Have you through cars from your station to the principal cities? By what routes do these cars travel? Are they making their schedule time regularly? Have you through cars to the transfer platforms of connecting lines? How are these cars handled at those platforms, and what trains are they making to destination? Are these through cars maintained in sufficient variety to afford considerable latitude in the selection of routing? Are they run "regardless of tonnage," or "when tonnage warrants," meaning every day, or only occasionally? Has your line a liberal minimum tonnage above which they will allow less-carload cars to be carded through? All these and other questions which will no doubt occur to you, if they can be answered in the affirmative, are appealing to the shipper of less-carload freight.

While on this subject, it is a good time to state the writer's opinion that less-carload freight is too often ignored in the quest for tonnage. The successful solicitor is more often measured in cars than in pounds. This is a great mistake. It goes without saying that carload business should not be ignored for less-carload but equal efforts should be made to secure both. The aggregate tonnage may not be large, and the number of shippers to be interviewed to make a twenty-ton car may be more than one, but after all, less-carload business, if handled scientifically and in sufficient quantities is better paying business than a good many carload commodities, which are handled at rates made to meet some real or fancied competition, and are therefore, not very remunerative. Less-carload business is mostly high class business, and if your handling of it is arranged so that a minimum of transfer is necessary for a maximum of haul, your earnings on a good

package car may easily be as much as on almost any car-load. So, don't forget the small shipper as well as the large one. Besides obtaining valuable tonnage you may make a friend who will some day grow to a large shipper and who will then continue to remember you as the man who served him so well when he was small.

Besides these large general services which are applicable to all kinds of freight and to all points there are other special services applicable only to certain localities or to certain commodities which are useful to talk about when soliciting those commodities or for those localities.

Milling-in-transit rates are explained in detail in another volume of the Traffic Library. Briefly they are rates which combine a rate on a raw product such as wheat or ore, from the point of production to a mill or refinery, and a rate on the finished product, flour or metal, to the point of distribution or consumption. These rates can often be used to advantage in soliciting business which can use them.

Storage-in-transit is somewhat similar, except that no change is made in the nature of the commodity. These rates apply on practically all kinds of goods at one point or another, and include rates from the point of origin to certain specified storage warehouses and the storage of the commodity for a certain specified period of time, and then the re-shipment to any point desired. It is possible in some cases to combine milling-in-transit and storage-in-transit privileges. Take for instance a car of wheat originating in Montana. It may move to Minneapolis, be converted into flour, which in time is forwarded to a warehouse in Buffalo, stored for several weeks and re-forwarded to New York for consumption.

On its way to New York it may be subject to other privileges. If the market at New York is not just right,

the car may be stopped in transit, held up for a day or two, then it may be diverted or reconsigned to Philadelphia or Boston. All of these privileges carry certain charges and conditions, and the general theory of them should be well-understood by the expert solicitor, although no one is expected to be able to keep track of all the details connected with each of them.

There are also storage privileges connected with certain commodities and included in certain rates. These are not storage-in-transit privileges, but storage-at-destination privileges.

Spotting and switching charges have been lately much in the public mind, as well as ferry-cars, by reason of the decisions of the Interstate Commerce Commission in these various cases, arising out of the five per cent increase rate case of the eastern trunk lines. Spotting charges are charges made for placing empty cars to load or loaded cars to be unloaded on factory sidings or industrial railways. Switching charges are charges for removing the loaded or empty cars after they have been loaded or made empty on factory sidings or industrial railways. Switching charges also include switching from the tracks of one line to the tracks of another. Ferry-cars are cars containing small lots of freight run from factory sidings or industrial railways to the nearest regular freight station of the railroad, there to be combined with other freight or forwarded as they are.

Absorptions are where any of the above charges are taken care of by the interested railroads and the consignee or shipper pays only the straight freight rate. The principal kind of absorption is the absorption of switching. In large cities factories are often located on the lines of one railroad, while other lines running into the same city connect with this factory only through the line on whose

tracks it is located. When freight arrives over one of the "off-roads" it is switched from that road to the factory by the road on whose lines the factory is located, and in most instances the charge for switching is "absorbed" in the rate, that is, it is paid by the line having the line-haul. These absorptions are not always made. Sometimes a line will not allow absorptions on business coming from or going to points which they themselves can reach. In this way they can force the shipper to give them the full haul, and not merely a switching revenue, although if the shipper desires to do so, he has the privilege of routing his freight by the "off-road" and paying the additional switching charge.

Large cities such as New York and Chicago have very complicated delivery and interchange systems. The belt railroads and tunnels at Chicago, and the lighterage system in New York are in themselves a life-study. The conditions at New York, particularly, are unlike anywhere else, owing to the fact that to ship or receive freight by any line but the New York Central, water transportation must be used. This fact has caused the growth of innumerable rules and charges and allowances set forth in the "lighterage and terminal regulations in New York Harbor," published by each line entering New York. Conditions such as these cannot, however, be explained in book form, no matter how intelligent the explanation. A personal inspection is necessary, and then the printed instructions will be more easily understood.

It will be apparent that there are almost unlimited things to talk about, and unlimited advantages to be displayed, but after all, the question of securing the freight lies not so much in the advantages which there are, as in the manner in which these advantages are set forth by the solicitor. You may have the finest line in the world, but if

you walk in and string a lot of phrases together pointing out every one of your line's advantages, even though the shipper you are talking to has use for but few of them, you will not stand a chance against the solicitor who has one advantage only, and presents that one in all its glory to his prospect. Quality counts above quantity, persuasiveness above preponderance, and truth above talkativeness.

## § 2. How long to Stay.

How long to stay? That depends. You don't want to be like the solicitor who rushed in on a man he knew very well one day, and exclaimed:

"Hello, Bill, just got a second. Came in to clinch that car for Cleveland. O. K. is it? Thanks. I've got to run along."

This whirlwind visit surprised the traffic manager so he did not recover his breath for some minutes afterward, and when he did he quickly changed his routing instructions against his impulsive friend, and thereby taught him a good lesson.

It is rather a difficult proposition to be the "early bird" with everyone. If you are on the trail of several good cars, and you fear you will lose them if you do not get the first call, it is manifestly impossible to be the first caller at all these places unless you are very lucky and your competitors have overslept themselves. Pick out the one you most desire to obtain and call there first. Then, when you have that car secured, you can take your chance on the others in the order of their importance. You may be lucky enough to get all of them.

Suppose for instance you are after three different cars, and you know they will all be sought after by your competitors as eagerly as you are seeking them. What should you do? You should first decide in what order you will

call upon the men having control of the routing of these cars. You will know from previous experience what time each one usually gets to his office, and will arrange to call on the one who is due at his desk earliest, about a quarter of an hour after he gets there. You will then have given him time to open his mail and get his day's work started. If you should happen to arrive before he does, find out if he is expected at the usual time, for if not, there is no use in your waiting for him and losing the chance of getting the other cars. If he is to come any minute, wait for him, and when he arrives tell him you'll see him whenever he's ready. Do not give him the impression that you are in a hurry.

When you are ushered in, go through your business just as though it were an ordinary matter. Do not hurry your call, or keep looking at the clock. Give him all the benefit of your arguments to make sure of his car. When he has given it to you, or if he has refused to do so, and you cannot make him change his mind, then your task is done, and you can get away as soon after that as you like. You will then proceed to the next man on your list, and try to reach him before anyone else does.

If your call on your first prospect has taken some time, and particularly if you have been unsuccessful in your quest and do not want to risk losing another car, it may be advisable to skip your second call, if you would arrive there some time after that gentleman had arrived, and proceed to your third prospect. You may reach him on time and be successful, whereas if you stopped at your second calling place, and were too late, you might be held up so long there that you would also lose the third car. When you have settled the matter of this car you can return to your second man, hoping by some stroke of luck, you may yet be in time to make him agree with your arguments and

give you the car, even though he has already tentatively decided against you.

You must always remember that you have never lost the business until it has actually moved, and likewise you have never obtained it until the bill of lading has been signed. It is of the utmost importance, therefore, that you should not skimp your calls. You should be sure always to take time enough to give a full explanation of the advantages you have to offer in the way of rates or service as explained in the preceding section, and you should make your points as telling and as detailed as may be necessary to clinch the business solicited.

It may be that your prospect has already tentatively decided on your route, or that he may so decide after a very short talk with you. If such is the case, and as soon as he has given you a promise to route the freight your way, your mission will be over.

Sometimes, no matter how early you call, you may find someone else ahead of you. You may call on a customer at nine-fifteen in the morning, and find four others waiting ahead of you. A condition like this certainly does not look promising, but you must never give up hope. Send in your card at once, perhaps you can write on it, if you know your man well, "save something for me," or words to that effect. That will inform him that you are there, and looking for some business, and if he has any predisposition towards your line, he may refrain from giving away the business you are seeking until he has had an opportunity of talking it over with you. In this way your card may be as good as your presence in staying a defeat.

Even if he has made up his mind against you, don't give up. "While there's life, there's hope." Your persistence and your persuasive personality may yet win the day, and may cause him to decide in your favor even though he has

previously made up his mind to favor another route. Not many traffic managers, after promising a car to a certain line, will later decide to change to another, but some will. These men are your hardest customers, for while you may laugh well when you turn the trick in your favor, you must realize that the next car may be promised to you, and then your competitor will come along and steal it away. If Mr. Traffic Manager will do this in your behalf, he will likely do it again in your competitor's behalf. The only way to pin this fellow down is to make your line and your personal service so attractive that he will have no object in changing.

In general you should not set any definite limit for your calls. The man who goes around with a slip of paper allotting fifteen minutes to John Smith, ten minutes to Charles Brown, and so forth, may make thirty calls a day, and may be a marvel for systematic solicitation but as for results, they will probably be lacking altogether, and results are what count, and not the number of calls. You will naturally begin, as they say in the minstrel show, with your "Salutation Gags," those little pleasantries that put your call on the friendly basis at the outset. You will then get down to business and state your case. You want a car, or two or three cars, or a certain shipment, or a general line of business. As you would purchase oats, or stocks, or potatoes, so you purchase freight, and you bid for it on the basis of your rates and service. "I want this business, and I offer you our line's facilities," that is the theory. If your price—your facilities—is right, the shipper will say "sold" and your business is done. This is putting solicitation into mercantile terms, but there is more to your call than the actual "purchase" of this "article." You must lay the first bricks for the foundation of a new structure which will be complete when your next business is secured. If

you should pick up your hat and go as soon as your actual business of that visit was concluded, you would leave behind you an unpleasant impression which you would have some difficulty in removing when you next called.

So, when your actual transaction is completed, say a few general words. What they shall be depends on the circumstances; they will occur to you at the time, and will probably be different in each particular case. These parting amenities should not, however, be long drawn out. If it is important not to be in a hurry, it is equally important not to overstay your welcome.

Put yourself always in the other man's place. How would you like to be treated if you were he. Certainly you would not care for a solicitor to take up half the morning chatting of inconsequential matters when your mind was on some very important affairs. You can usually judge from a man's answers to your remarks whether he is prepared to gossip with you or not. If his answers are short you may judge that your room will be more welcome than your company; if they lead to further remarks by you, you may suppose that he is interested in the conversation and desires to continue it.

There are men who carry on the most of the conversation themselves. Your part is then to sit and listen, and your listening may often be most instructive, for they may give you some useful information at times, not only regarding their own business, but also regarding other business which you may thus be put in the position of securing. I know of one instance where a wide-awake man was able to put his company on the track of 250,000 tons of a certain commodity, merely by mention being made to him that these goods had been sold. The man who made the statement had nothing to do with the sale or routing; how he knew it was a mystery, but the man he told got busy, and

although his company had very little chance of obtaining any of this business at the start, and probably would have obtained none of it if they had not got the first information, they eventually secured the whole of it, greatly to the delight of the alert individual who had picked up this news merely by keeping his ears open.

When in the company of men who do most of the talking, like this one, you may wait for him to give the cue for you to go. He may rattle on for an hour, or something may turn up in five minutes to distract him, but whenever he gives the unmistakable sign of being restless at your presence, say *au revoir*.

Then, there's the exact opposite of this type, the man who wants you to do all the talking, who wants to sit and listen to your idle chatter. This gentleman usually wants to know all the news of the street, who is engaged, who is married, what the latest story is, and so on. He seems to have an insatiable desire for all kinds of information. You should be careful with him to give him only such information as will be useful to you, or else harmless gossip. Never speak ill of your competitors, or of his, and never give away any secrets which may be uncomfortable for you to have brought to light at some future time.

In any case, it is just as bad form to stay too long as to cut your visit short. No one enjoys a garrulous visitor, and the following type of conversation should be strictly avoided:

"Well, I see in the papers that the commission has refused to allow those southeastern rates. Now that's a shame for the people of Atlanta and Savannah, but it's better for us up here. I suppose you're mighty glad, aren't you, though of course you didn't oppose them openly. I know you've got quite a business down there, and if you let those Baltimore jobbers get in there on the ground

floor, it would never do. As I said to the boss this morning, we've got to keep those differentials as they are, or we'll lose all the business from this territory. At the same time it's too bad the railroads can never get an increase through the commission any more. If I were on the commission I'd want to allow a few increases just to sort of even things up. They seem to be always on the side of the shipper. But of course, that's your side isn't it? Funny how we always seem to look at things from our own point of view and forget the other fellow has an idea or two once in a while. Well, if they keep on reducing earnings and increasing expenses, they'll drive all the railroads into bankruptcy, and that will mean government ownership, sure as shooting. What'll become of all us poor solicitors then, I wonder? I guess I'll move on to Old South America when that happens. They say it's a wonderful place down there, and the coming commercial center of the world. I had a friend just came back from Buenos Aires, and he says it's the most expensive city in the world. Everyone is a millionaire down there. He bought a necktie for me cost four dollars, and it wouldn't bring a quarter at Marshall Field's. But it's a beautiful town he says; wonderful buildings, and the docks and harbor improvements are marvelous. The railroads need building up though, so I guess there's a good job waiting there for yours truly. I'll save one for you when I get down there, eh? They say the climate is ideal too, never too hot or too cold. Golly, I wish we had some of that weather up here. Remember what a scorcher it was last Saturday? Well, I went out with a couple of friends to the Elkwood Golf Club, and we started to play a round, but, believe me, by the time we made the ninth hole, old Jim Castle cashed in. Fainted dead away, the old war-horse. Nearly had a sunstroke. You bet your life that was enough for us. We took him

into the club house and revived him with cold water. I guess that was about the first drink of water he'd had in some time! Ha, ha, ha!"

And so on, ad libitum.

Now no one wants this sort of a pest around, an expert on all topics from the fall of Adam to the latest fox-trot. You can imagine how the listener to such an oration would fidget in his chair, glance at the clock and fumble his papers, waiting for the end. Many a man would lose patience and say:

"Sorry, old man, but I'm busy to-day. So long."

Don't run the risk of this humiliation, but when your business is done, and you have paved the way for future business by some pleasant conversation (if your customer is willing), take up your hat and depart.

Especially if another solicitor's card is brought in, don't dally any longer than necessary. Practice the golden rule and give the other fellow a chance. You may be in his position some day, and would not care to cool your heels outside the office for the best part of an hour, while he held the fort against all comers.

But when you do go, let your parting word be one of cheer. Don't leave your customer with a gloomy impression of you. If you enter the office and find clouds in the air, be the shining sun and dispel them before you leave. Radiate good-nature, and let nothing ruffle you. You may have a hard task to smooth away difficulties, but if you bring to the work a cheerful countenance and a pleasing personality, you have won half the battle already.

Some solicitors are the personification of happiness. To meet them is a pleasure and to take leave of them a regret. Cultivate a courtliness of manner that commands respect, and a smiling face that begets willingness to help you. Remember that in you, more perhaps than in anything else,

your customer sees your road, and if you are morose and low-spirited, he is bound to get the impression that your line is not a wide-awake transportation agency. If, on the other hand, you bring good humor, patience, and a fund of knowledge into his office, your customer will feel that he is dealing with a live, quick-witted railroad which will give him the service he desires.

Personality is power, in solicitation more than in any other part of transportation work, and it is up to you to turn your personality to good account. As stated many times, no two men are alike, and this applies equally to solicitors and to traffic managers, so that it is necessary to make an intensive examination of your own personality, and find what characteristics can be developed to the highest point, and then develop them, and use those characteristics as they apply to the man whose business you seek. Make your personality complementary to his, which means find his groove and adjust your plastic self to fit that groove so that together you will make a harmonious whole—your line and his traffic.

Not all men are naturally humorous, not all have a ready wit. Those who have will do well to cultivate that trait as a treasure, for laughter is contagious and the man who can see the point of one of your jokes will more readily see the point of your serious arguments for his business. Some men can solicit business successfully as a huge joke from start to finish, but those who cannot do this naturally, had better avoid it. It would be a welcome thing, indeed, if more men could do it, for life and business are too serious in most instances. Even though you are not naturally humorous, you can appreciate the value of a laugh or a smile, and can cultivate the cheerful side of your nature.

That old song of George Cohan's "Always leave 'em laughing when you say good-bye," shows the advantages

to be derived in this profession from the principles herein set forth. It may well serve as a slogan for the successful solicitor. As some of you may not have heard of it, here you have the opportunity to copy it and paste it in your hat:—

My dad would never preach to me,  
In fact he'd never teach to me,  
The different things that I should do, when I'd be  
here and there.  
In fact he said "Go on alone,  
You have ideas of your own,  
You'll never lose, if you will use the others fair and  
square."

That's just as far as he'd advise,  
'Till one day to his great surprise,  
I went to say that I was going to other lands to live,  
And as I went to say good-bye,  
He saw a tear drop in my eye,  
Said he, "My lad, ah, that's too bad, I've some advice  
to give.

"Always leave them laughing when you say good-  
bye,  
Never linger long about, or else you'll wear your wel-  
come out,  
When you meet a fellow with a tear-dimmed eye,  
You can leave him laughing if you try.  
When he tells his troubles, interrupt him with a  
joke,  
Tell him one he's never heard, and he'll declare that  
it's a bird,  
When he's giggling good you know, that's the time to  
turn and go,  
Always leave them laughing when you say good-  
bye."

### § 3. Personal Service.

Having succeeded in obtaining some business from your prospect as a result of your call upon him, and the bill of lading having been signed, your line's responsibility for the carriage of your customer's freight begins. You may now feel that all of your work in connection with this car has ceased, and that you can turn your attention to the securing of other business, in which, likewise, you need take no further interest once the bill of lading has been signed. This is no doubt true of many solicitors, but we are not following their example, we are endeavoring to point out how a man may rise above the ordinary type of solicitor and may make himself competent to fill the higher positions in the Traffic World.

Solicitors such as these—our ideal solicitors—rightly feel that when the bill of lading passes the responsibility to their line, their own responsibility for the shipment has only just begun, and their responsibility lasts until the shipment has been well and safely delivered. This is so because you are your line to the man from whom you obtain the freight. He gave the shipment to you, not because of your railroad or its service or its rates, but because you pointed out that service to him, quoted him the rates, and urged him with every power at your command to give you the business in preference to your competitor. So it is up to you to make good your promises and your arguments, if you would hope to be successful in soliciting further business from your customer.

Personal service, entirely apart from the actual transportation service rendered by your line, is therefore, one of the most important privileges of the solicitor. The word privilege is used advisedly, for there is no greater chance for your value to your customers to exceed that of your competitors, than in the exercise of these privileges in the

proper way. Besides all this, they are a welcome relief from the more or less monotonous duties of outside work, tramping from place to place, which, if it were the only thing you had to do, would often prove irksome.

As an example of the way in which these "little things" are thought of by shippers, let us quote an example which is not concerned with solicitation at all.

A shipper of earthenware once made two shipments of his commodity at a Union Freight Station. Each consisted of one crate, but the goods in each crate were different. One shipment was going to a point on one road, whose receiving platform at this station was three blocks from the receiving platform of the other road. By mistake the shipper placed the tags on the wrong crates, and the error was not discovered until his truck returned to the factory. He called up the agent of the Union Station and explained the matter to him. Though both cars had been loaded and were practically ready to forward, they were opened, broken down, and the two shipments taken out. The shipments were then carted from one platform to the other and the tags exchanged in accordance with the shipper's request, and the cars reloaded again. This process took not only a considerable amount of time, but cost money to unload and reload the cars, and to exchange the shipments by cart, but nothing was said about that.

The next day one of the officials received a most enthusiastic letter from the shipper telling the whole story and saying:

Although this mistake was no fault of your people, they took the utmost pains to assist us in rectifying our error, and did it willingly and cheerfully as though nothing unusual had occurred. It is little things like this which make it a pleasure to do business with your company and its capable and courteous employees.

So you will readily realize that if agents, foremen, and laborers are willing to perform little services cheerfully, you, who come in daily contact with the shipper, should be even more anxious to do so.

As your arguments are principally based on time in transit, you will be naturally anxious to have your promises to your customers lived up to in this regard, and will also want to demonstrate to them that the delivery promised was actually accomplished. In order to do this it will be necessary to follow your cars. In all soliciting offices of any size, copies of all waybills on carload freight are received each morning from all billing offices within their territory. These copies of waybills are sorted and arranged according to the solicitor in whose district the shipper is located, and placed on the solicitor's desk every morning before he arrives. They show him whether the shipments he has been promised have started to move, and also the car numbers and other useful information. Some will show train numbers. You will take note of these in a book record form, showing the name of the shipper, the destination, car number, and also the date on which the shipment is due at destination. If the car is to move off your line, you will also note the date on which it is scheduled to be delivered to your connection.

A day or two later, your office will receive a passing report. These passing reports are made up at various points, particularly junctions with other lines, or at the dividing point on your own line between two operating divisions. These reports will probably not be handed to you, as were the waybills, but will be placed in an accessible file for the use of all solicitors who are interested in them. Day by day you will look them over carefully, and note if the cars you are interested in have passed the points at which these reports have been issued, at the time at which they are due

to pass there. If so, a check mark or other entry in your book should be made. If the cars are late in arriving at any of these points, a note of that should be made, in order that the delay may be investigated through your operating department if necessary. If a certain car is your first shipment from a customer, it may be advisable to keep him posted either by a call or by telephone of the exact time his car is making, that is, if it is shown as passing these various points on time.

You may also get reports of arrival at destination, though these reports are not so universal as passing reports. If the shipment goes to a connecting line, you will probably not receive a passing report after the one from your junction with that line, and if an arrival report is desired, it will be necessary to ask for it by wire. Of course you will not ask for an arrival report in more than one case out of a hundred, probably, as they are necessary only when you want to demonstrate to a new customer just what your service is doing for him. A complete picture of the movement of his car, furnished in this way by you from day to day, will prove to your customer more conclusively than in any other way, that your arguments are backed up by actual service; service of your line in handling the shipment on schedule time, and service of yourself in reporting this fact to him.

Another personal service of great value to a shipper is tracers. Unfortunately, the tracer is a much-abused commodity. Many shippers, particularly those without an educated traffic manager, have an impression that a tracer is a means of expediting freight. You will often see orders given to "ship at once, and follow with wire tracer." The concerns who use this trite phrase have an idea that this method of procedure will bring them their goods faster, and sad to say, many firms comply with these requests in

shipping the business. They only do this through ignorance, and the worst part about it is that there are so many of these foolish and useless requests for tracers, that some railroad agents have come to look upon the tracer as a joke and consign them all, good or bad, to the wastebasket. This is true not only of the agent receiving such a request, but also of the agent at destination who receives a tracer requesting the date of arrival and delivery.

"Oh, I'll answer this when I've got time," he says, and into the files it goes, and is probably never answered.

Now, your duties being in a sense educational, you should take it upon yourself to educate shippers as to the proper and improper uses of tracers. Point out to them, if they ask for a tracer at the time the shipment is forwarded, that a tracer is not a means of expediting the movement of their freight. It is merely an instrument for use in rounding up a shipment that is lost, strayed or unduly delayed. Tell them to figure out the time their shipment should ordinarily be in transit, say one hundred miles a day for less carload or local freight, and two hundred miles a day for through fast-moving carload freight. If the shipment has not arrived at destination within that time, then it is proper to start a tracer, and not before. This method of education, if followed by all solicitors would tend to discourage the useless tracer which often clogs up the railroad's offices to the detriment of the bona fide tracer seeking for essential information, and causes the whole tribe of tracers to be looked upon with scorn by most railroad agents.

On the other hand, you should encourage your customers to place their requests for real tracers in your hands, for you will thereby add another tie to bind them to you personally, and your position will command more respect when asking for a tracer. It will probably be an-

swered when coming from you, when it might not be if sent out by the station agent.

When you do receive a request for a real tracer, handle it with care and show your customer that you can give service in this particular, as in others. If you are in a large soliciting office, you will have a tracing clerk who does nothing else but follow up these requests, and it will be to your advantage to turn the matter over to him for investigation and report to you. You should, however, keep a record of the tracers which you have turned over to him, so that you may jog his memory occasionally in case he does not give you a prompt report. You will also enter in this record, the date the report has been received and transmitted to the shipper who gave you the request to trace.

If you have not such a clerk in your office, it will be necessary to do the tracing yourself. This may be done either by mail or fire, according to the exigencies of the situation. In either case you will communicate, if the shipment has moved wholly on your line, with the agent at destination, giving him your waybill number and other necessary information. If the shipment has moved to a connecting line, you should communicate first with the agent at your junction point with that line, quoting your waybill number and other data as before, and also giving the date of passing his junction and the number of his passing report, if it has a number. You may ask him to report to you the waybill number of the connecting line, and then you may take it up further with destination as before, or you may ask the agent at your junction to take it up with destination for you and report.

If your correspondence is by mail, and you have not had a report within a reasonable time, it will be well to follow it up by wire to insure results. At all events be sure you get an answer to every tracer, because by reason of the

facts stated above, so many tracers are unanswered that most shippers have got into the habit of never expecting to hear a word from any tracer they may request.

When your report is received you will at once communicate your findings to the shipper either by mail, in a personal call, or by telephone. That shippers appreciate advice as to tracers is testified to by the following extract from a letter recently received in answer to one giving advice as to the arrival and delivery of a shipment which had been traced:—

Permit me to say that this is the first reply we have ever received to a tracer within two months after the shipment was delivered. We shall certainly enlist your co-operation in future like cases.

There is a ground work of friendship that will no doubt result in many a ton of traffic.

If your report shows that a shipment has never arrived, or that it arrived short or damaged, you should call personally on the shipper to make your report, and request him to file a claim for the loss or damage sustained.

The handling of claims is another personal service which you can perform in a manner to win the esteem of your customers. There is no feature of the transportation problem which creates more friction than the handling of claims, and as it is your particular duty to smooth away friction and make every common interest of the shipper and carrier as friendly as possible, so it is desirable that you should take care of your customer's claims for him as you do of his tracers.

There is, unfortunately, so much friction between the carriers themselves in the settlement of claims, that the investigations are long drawn out, and very annoying to the shipper who has lodged an equitable claim. In a way

the shipper is to blame for this delay, for many of them file claims which are not correct. Some of these claims are filed for more than the amount of the damage, some are filed with no necessary papers, such as the bill of lading or the freight bill, attached. The first thing the claim agent does is to request these necessary documents, or to ask to have the claim amended to the proper amount. All of this takes valuable time which could be avoided if the claims were properly made up before being presented. There is now a standard form for the filing of claims, approved by the Interstate Commerce Commission, and it is to all shippers' advantage to use these forms.

These unnecessary delays in straightening out improperly filed claims, crowd out the legitimate, well-presented claims, which should be given prompt attention. Then the claim agents are not over-prompt in handling even the clearest of claims. They must be sent to the forwarding agent for his record, then to the delivery agent for his, and if there are two or more lines involved in the handling of the shipment, the claim must be recorded in the freight claim files of each road, all of which takes time. Even when all the records have been compiled, the claim is often not paid until each line has paid its proportion. These proportions are fixed by rules adopted by the Freight Claim Association, as explained in detail in Chapter X, but there are many claims which come under more than one rule, and each claim agent involved tries to bring it under the rule which calls for the smallest payment by his road. Perhaps these differences of opinion require correspondence for weeks and months, and every letter means a delay of several days. The total result being that on many a perfectly legitimate claim, the shipper is kept out of his money for four or five months, and sometimes a year.

Naturally, he is incensed at this treatment, as he feels

that his claim should be settled inside of a month at the very latest. It would be, too, if the freight claim agents would only take the same interest in the time saved in settling claims, as they do in the money saved for their road by the clever manipulation of the rules.

While you should not become in any sense a mediator between your customer and your claim department you should in any event keep very close to your claim officials, and if a claimant discusses any claim of his with you, take note of it and assist in its speedy settlement in any way that you can. You should avoid, however, taking sides in any claim controversy, neither defending your road's action, nor championing the cause of your customer.

As you are trying always to be of service many customers will no doubt place their claims in your care. When you receive a claim, look through it carefully to see if it has all the necessary papers attached, and if it is made out in the proper manner. If not, take it back to the claimant and obtain the necessary papers and the proper information. When the claim is properly made up, enter it in a book record with a number of your own. If the claim is one growing out of a shipment which you have previously traced, dig out your old tracing file and attach it to the claim. It may save some investigation on the part of your freight claim agent, although he probably will spend two weeks' time in verifying all the information you have compiled.

If you have not previously investigated the record, and if it is an outgoing shipment, get, yourself, from your agent, at whose station the shipment was made, his record of the handling of it. If the claim is on an incoming shipment, get the delivery record from your agent at whose station it was delivered. When this has been done, attach

the information to the claim, which is then ready for filing with your freight claim department.

As in the case of tracers, if your office is a big one, you will have a claim clerk who does nothing else but attend to the filing and following up of claims. If so, turn your papers over to him, making a note in your record of the date and the office number of the claim. If you have no claim clerk in your office, you will send the papers yourself to your freight claim agent, using a form which is used by all railroads for this purpose. When the claim number of the freight claim department has been received, either by you direct, or by your claim clerk, enter this number also in your records, as it will be necessary to quote it if you have any further correspondence about this claim with your freight claim agent.

After thus filing the claim, do not forget it. It is a good practice to look over both your claim and tracer records once a week, and send out "urgers" after those which do not seem to be going along properly. If a claim is unduly delayed, and you cannot get any satisfaction out of your claim department, put the matter in the hands of your immediate superior, who will no doubt have the matter attended to.

It is important when sending in claims, particularly loss and damage claims, to ask your claim agent when paying the claim to send the voucher to you. There is nothing which will give you a warmer welcome at the hands of your customer than for you to walk in with a check in your hand in payment of a claim. Particularly is this true if your payment comes promptly after the filing of the claim, for you will be able to point out to him that your line gives service in these small respects as well as in the larger matter of getting his car to destination.

Another way in which you can be of service to your cus-

tomers in the matter of claims, is on claims which are not handled through you, but direct. If a customer mentions to you that he has a claim which has been outstanding for a length of time, make a note of it, getting your claim agent's number, if possible; if not, the forwarding record. With this record you can probably obtain the number from your agent at whose station the shipment was made, who will no doubt have a record of it on his waybill. You can then proceed to take the matter up with your claim agent, as in the case of claims filed through you, asking him to send you the check in payment. Much effective work can be done in this way, and your customer will probably feel even more grateful to you for aiding him in this claim, which was not filed through you, than in one which was, and which he may feel is more or less a personal concern of yours anyway.

An instance of what may be accomplished in this connection, is the following:—

A concern made a claim for loss of a bag of corks from a shipment moving over a route in which three lines handled the shipment. The claim was filed with the initial line which was able to show a clear receipt to their connections, and passed the claim on to them without any notice to the claimant other than their original acknowledgment of the claim. Months passed and nothing was heard of the claim, which was a clear case of loss, and properly presented.

One day the solicitor for the initial line called on the claimant to get some business, and the matter of this old claim was brought up with some remarks detrimental to the solicitor's line, and their methods of handling claims. The solicitor promised to look into it, and have the claim adjusted, if possible. So he took a note of the number, and, his claim department being located in that city, he called there the following morning. He found out that the

claim had been sent to the connecting line within a week after its receipt, and that no responsibility either for the loss or the delay to the claim rested with his line. Instead of going back to the claimant with this unsatisfactory report, he took the bit in his teeth, and called upon the claim agent of the connecting line, who was also, luckily, stationed in his city. This gentleman received him courteously, had the file brought in, and developed that the loss was clearly established with the third carrier, the delivering line. This line had acknowledged their liability, but so far had failed to settle the claim.

The claim agent, noting this record, saw at once that there was no occasion for any further delay, and told the solicitor that, if he would wait, he would have a voucher drawn at once, and would collect from the delivering line afterward. Needless to say, the solicitor waited and secured his check, and the following morning he called on the claimants and presented them with their long lost funds, much to their delight. In future they will always put their claims in his hands, and further, they will realize that his services are valuable in other matters as well as in the collection of claims.

One service that the solicitor should never be called on to perform is the collection of bills. If the payment of a claim is the occasion for a love-feast, the visit of a collector is the signal for a hymn of hate. The two can never be reconciled, and as the solicitor's business is to generate feelings of friendship between his line and the shipper, he should never be placed in a position where his visit will incur ill-feeling. Let the solicitor stick to soliciting; there are enough angles to that to keep any man busy, and leave the collecting of bills to those who have not the duty of collecting tonnage.

While following up cars, tracers or claims, constant re-

ports of progress should be made to the shipper. To do this it is not at all necessary to call in person each time. At the same time, writing is often unsatisfactory, so why not use the telephone?

The telephone as an instrument for the solicitation of business is strictly taboo. A certain western traffic official came to New York one time, and spent several days calling on various customers. Just as he was leaving he remembered one he had forgotten, and called him up on the 'phone. The answer he received was not calculated to make his parting happy. It was:

"If you can't find time to stop in and see me, you needn't bother to call me up. My business is more important than a telephone message."

Now this seems a very foolish position for any broad-minded man to take, and yet solicitation is so personal, so much a matter of talking man to man, that the actual solicitation of traffic over the telephone will never become popular. At the same time, as an added asset to solicitation, the telephone is very important.

If you have a large list of customers, it is naturally impossible to call on them all frequently. Some who are not steady customers must be seen about every car they ship; others are shipping over your line every day and need only be seen occasionally. A lot can be done with these regulars by calling them up on the telephone between visits, and reminding them of your existence by thanking them for a certain car, or by reporting to them about certain matters they are interested in. You should always accompany this talk with the advice that you will be around to see them in a day or two. This will show them that you are not actually using the telephone as a substitute for a call in person. You have to call there anyway, that day or the next. Even if your visit is to be only two days off, a

telephone advice will be often appreciated, as anything that saves time is a large factor in transportation.

Much has been said and written about telephone courtesy, but this point cannot be too often impressed upon those who use the telephone to communicate with former or prospective customers. Never keep a customer waiting for you at the telephone. If you call up a customer do not expect him to come to the 'phone and then have to wait for you to come on the wire to talk to him. Be ready, be courteous, be obliging and the telephone will be an added asset in your never-ending search for business.

#### § 4. Remedying Complaints.

No human agency is infallible, and no machine is perfect, so when the two are joined together accidents are bound to happen sometime. The carelessness of an engineer who runs past his signal, thereby causing a wreck to a fast passenger train with a consequent loss of life, is a human failing, the same as a conductor who puts a freight car at the wrong station, thereby causing a delay to some impatient consignee. A printing press which slips a cog somewhere and turns out a thousand newspapers with one page blank, is a faulty machine, the same as a computing machine which makes a mistake of a hundred dollars in your freight bill.

However, in the case of the reckless engineer, who will never live to tell the tale, or in the case of the printing press whose false edition will never be sold, the taking to task for the failure is impossible, while when a car goes astray or a bill shows an error, the freight solicitor gets the blame.

In solicitation, as in other pursuits, the man who comes in contact with the customer is the one who will suffer the humiliation of a reproof for many faults which are not his. Still, realizing human frailty, he will put himself in his cus-

tomer's place, and instead of trying to excuse himself by saying that it was no fault of his, will set about to shoulder the blame, and remedy the error as far as it lies within his power to do so.

As long as railroads run, mistakes will occur. They cannot be prevented. The best laid plans will often go astray, and the rosiest hope of a successful performance on a certain shipment will often be turned to naught by some trivial accident of human or mechanical nature. A broken brake beam may throw into the shop a car which you are counting upon having delivered on a certain day, or a yard-master may switch a car into the wrong classification track. Anyone of a thousand different things may conspire to rob you of that confidence in your ability to serve him, which you have worked for many long months to engender in your customer.

It usually happens, too, that the very car which is so important, the very shipment on which you have staked all chance of future business, will be the one to go astray. This is the contrariness of human nature, the paradox of life, and this being so, you must, in addition to preparing yourself to obtain business, train yourself to remedy the complaints which are bound to follow a faux-pas such as this.

Complaints are part of life; if we got no complaints, we'd be too good for this world, and should move on to the next. The longer we live, the longer we are engaged in a business which takes into account so many varied features, so many human agencies as the railroad business, the more we must expect complaints.

Complaints are of two kinds, general and specific. The general complaint covers some continued failure, some lasting fault of service. It may be that a particular train is not making its schedule with any semblance of regular-

ity. It may be missing connections five days out of six. It may be that your package cars which are to run "regardless of tonnage," are being held over day by day for a certain minimum. It may be that some particular clerk in one of your stations has a habitually offensive manner on the telephone. At any rate, it is something that is not a mere accident but approaches design.

A specific complaint on the other hand, may be related to the general complaint. A shipper who is a daily user of your line may complain of a failure in your schedule which is of daily occurrence, while a shipper of one particular car who met with this failure, would have a specific complaint on that one failure which affected him. More particularly, though, a specific complaint refers to some unavoidable error in the handling of a particular shipment, something due to some slip on the part of one of the human or mechanical units involved, but a mistake which is confined to this one case, and is not a general slackening of the service.

Be the complaint general or specific however, it is your duty to take note of it, investigate it, and go as far as you can to remedy it. Sometimes this remedy cannot be found, sometimes you are not skilled enough in the other departments of your line to find a remedy, but if you cannot succeed yourself, you can always report the circumstances to your superior who will no doubt take the proper measures.

When you have secured a shipment and the bill of lading is signed, from that time on the traffic department of which you are a part, relinquishes control of the shipment to the operating department. The traffic department of course, watches it, reports on it, records it, and takes credit for it, but the success or failure of the handling of it rests with the operating department until the shipment has been delivered and the delivery receipt signed. It follows, there-

fore, that if any slip-ups occur which may be the cause for complaint, they are bound to be at the hands of your operating department.

You must, therefore, keep in close touch with your operating officials, and your operating officials should keep in close touch with you. After all, though the two departments are separate, each, usually, with its own vice-president, they are both members of the same big family. Both are working to uphold the prestige of the railroad which gives them a living, and each is dependent on the other for its own livelihood. Where would the solicitor be if it were not for the conductor who takes charge of the car he has secured, and where would the conductor be, were it not for the solicitor whose efforts create the earnings which pay for the conductor's salary?

There are many roads whose operating and traffic departments work hand in hand, as they should, and on the contrary there are some roads where the two departments are continually at loggerheads. If the traffic department suggests that by running a train at a certain time it will increase business, the operating department disagrees with them; if the operating department suggests that the traffic department secure some business to fill some new furniture cars which the line has built, the traffic department feels aggrieved at the suggestion.

Of course, your road is not one of those. It is? Then be the first man to make the break. Get close to your operating people, the closer the better. If a car is delayed you want to know the man who not only can account for the delay, but see that it doesn't happen again. If you find some new business which requires special equipment, you want to know the man who can supply it on the shortest notice. Knowing the names of the officials is easy, any railroad guide will tell you that; knowing the man with the

goods so well that he will make a special effort for you, is another proposition entirely.

The first man to know, and perhaps the most important of all, is your local agent, or if you are stationed in a large city, all the agents at each of your stations. The agent is the man who starts the car on its way. He signs the receipt for it, loads it, cards it, and waybills it. If it is a small station he usually sees personally that the car is put in the train and actually started moving. He can tell you all about the initial steps in the handling of the shipment. Was it loaded in the proper car? Was the car the proper size? Was it the kind of car ordered, or was it too large, and will the shipper complain if he has to pay for an additional minimum weight? Was the correct rate applied on the billing, or did the billing clerk overlook the fact that a commodity rate applied, thus causing a claim for overcharge? Was the correct route, specified on the bill of lading, placed on the billing and running papers, or through some mistake, was another route applied, thereby causing additional expense which will have to be paid for by the road at fault? These, and many other questions, the agent alone can answer. He is also responsible for his station force, and if one of his clerks or checkers is guilty of an error he is the man to be told of it, that he may caution the careless man, or discharge him, if his faults are continual.

The next operating official for you to be on intimate terms with, is the superintendent of your division. He will be able to regulate the supply of empty cars available for loading, the kind of cars desired for particular shipments. He sees that the trains on his division are run on time as per schedule, and will remedy any errors caused by delay of these trains. He will give you records of the movement of trains on his division, and the time cars

are turned over to the next division. He is responsible for all the train crews on his division and will discipline those whose acts and mistakes have caused complaint.

The superintendent of transportation has jurisdiction over the classification of the various kinds of freight in the trains, the high-class fast freight or the bulky, slow freight. You may have occasion to suggest to him the advisability of changing the train classification of a certain commodity in order to compete with another line.

Above him is the general manager who has charge of the movement of trains over the whole line. He will put on new trains to meet new or competitive conditions, will expedite the movement of special cars, will speed up train service to make connections with the trains of another line, and will do the hundred and one things which his subordinate officials cannot do.

Besides these officials there are the superintendents of the other divisions, the superintendent of car service, besides the higher officials, such as the operating vice-president, all of whom will be far more willing to work with you and listen to you if you know them personally and well, than if you are merely one of the army of solicitors who is working for their line.

In working with your operating department you should not take too much on your own shoulders. You are a member of a great department, whose higher officials rank equally or ahead of the higher officials of your operating department. Any large general question, affecting the interests you serve, should be handled through them, and not direct. They have various duties and powers as set forth in another chapter of this volume, and they will want to know of any plans you may have for improvement in the service before you appeal to the operating department direct. In all such matters tact is an absolute necessity.

As a great many of the shipments which you solicit move off your line, and are handled jointly by more than one railroad, you may receive complaints of poor service which occurs on the line of one of your connections. At first it will seem as if you had nothing whatever to do with these complaints; they do not concern your line at all. And yet, you must remember, the whole operation of moving a car of freight is continuous, no matter how many lines handle it, and if you secured the business you have a personal interest in seeing that the whole movement is accomplished in accordance with your promises, and if it is not, you must see why not, even if your own line's haul has been taken care of satisfactorily. If this is the case, you must work with those connections, and to work with them satisfactorily, it will be necessary to know who to work with.

In all the important cities, the principal railroads maintain soliciting agencies. Your line itself has many of these agencies scattered all over the country, in cities which are not on your line at all, but from which your line obtains business through connections, and in your city there will be many offices of railroads working to obtain business through your line and their other connections. You should make it a point, therefore, to know intimately the representatives of these connections, their solicitors as well as their chief officer in your city. In addition to helping you to get business for your line, as explained in the following section, they will be necessary in following up shipments and remedying complaints on shipments moving over their line. There will be in their office a record of all the shipments moving from your city to their line, waybills, passing reports, etc., as in your office and you can obtain from their office the records of cars you are interested in after they have left your line.

By working with the solicitors of these lines, you may be able to suggest some new schedules, or some new train service which will give you both business which neither line would be able to obtain otherwise. Through package cars can be arranged in this way, and valuable tonnage secured by this means.

If you hear a complaint of service which occurs on one of your connections, take it up at once with their representative in your city, and obtain his explanation of it, and his promise to remedy the cause. Do not go around blaming your connection without just cause, or in fact for any cause whatever. There are too many solicitors who go around trying to relieve themselves of the onus for any blame, by throwing the whole responsibility onto their connections. Sometimes the blame is merited, sometimes the fault lies directly with their own line. There is no worse fault than this. The operation of moving freight is a continuous one and the responsibility is divided among all carriers which handle it, until the whole operation is concluded. A solicitor should feel that his line is interested in its movement through its entirety, and not only in that part of the movement which occurs on his own line. The shipper or consignee, too, considers this movement as a whole, and does not divide it into separate parts, according to the different lines which handle it. All he cares about is that he gets his freight when he expects it, or that his customer gets the freight which he ships him, on time. If a delay occurs, he doesn't care if it happens on the A. B. C. or the X. Y. Z. railroad, all he wants to know is whether steps have been taken to guard against such a delay in the future.

All that is necessary is to tell your customer the facts. It is no part of your job to seek to absolve your own line

at the expense of your connections, but tell the truth freely and frankly. You should say:

"Yes, that was a bad fall-down, but I've looked into it and find that our time was according to schedule. Unfortunately our connection didn't make its schedule as well as we did, but our officials have the matter up and are trying to arrange a more satisfactory service for the future."

Your customer will have far more respect for you for making a statement of this kind, than if you make one heaping the blame upon a line which is not a competitor, but one sharing equally with yours in the responsibility and the earnings from the carriage of the shipment.

Finally, whatever you say you will do, do! Never make a promise you cannot fulfill or one you are not sure you can fulfill. If you tell a customer that you will positively have his car ready for delivery at seven o'clock, you must also tell him that your promise is conditional upon the perfect performance of all concerned according to past custom and experience. If the car is not there after being promised, you will have lost the confidence of your customer in your ability to perform as well as promise. If you cannot be positive that a thing will be done, do not promise. Say you will do your best to have the thing accomplished that he asks. Then do your best, use every means in your power to get it done, and if it is done, and if it is done as he wants, he will have even more confidence in you for having done it; if it is not done, he will at least know you have tried. To paraphrase the old proverb, "'Tis better to have tried and failed, than not have tried at all."

Some solicitors do not take such complaints seriously. They seem to feel that a shipper complains just for the fun of it, or just to make the solicitor feel uncomfortable, or

to "show him up." Of course there are some shippers who do these things, but you should not judge them all by one horrible example. Even the horrible example should be humored, and his complaint attended to. Some of these complaints are so trivial that they can be dismissed at once, with a short explanation, others will require some investigation which will show that no one is at fault but the complainant.

A short while ago one of these unreasonable shippers called up to make a severe complaint. He had called up the rate clerk to ask for a rate to a certain point. The rate was given to him by an all-rail route. What he wanted was that rate by a water route with which there was no connection. Naturally, the rate clerk could not give him this rate. All the time he had the correct rate in front of him, and merely wanted to see if the rate clerk knew his business or not. The rate clerk certainly did, but the shipper did not, as he should have known there was no connection with the water-route. However, he had a large-sized kick to make. He could never get any satisfaction out of that office anyway. He had even called up another office, and talked to the rate clerk there. (As there was no rate clerk in this office, that seemed rather an impossibility.) He also wished to say that there was only one man in the whole concern that he could get anything out of. Who was that? Why Mr. Robinson, the general agent. That was interesting. Had he talked to Mr. Robinson about this matter? No he could not get him on the wire. No, that would be rather difficult, as Mr. Robinson had died two weeks ago.

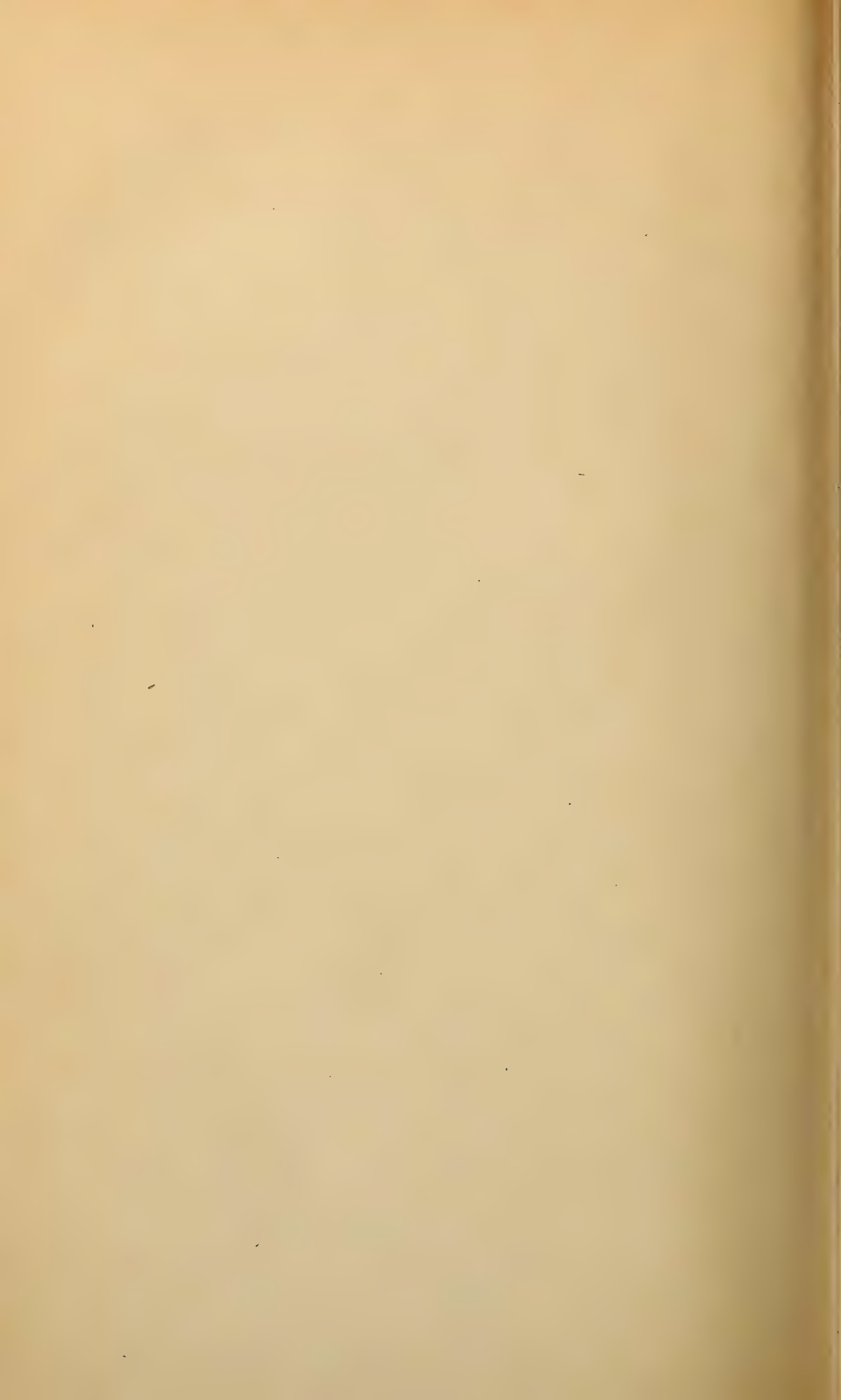
These complaints certainly disgust an intelligent solicitor, but the only thing to do is to be polite, and smooth the angry one down. But these kickers are few, and the men who have real grievances expect them attended to,

and they expect you to attend to it. So never let a kick go in one ear and out of the other. Get to work on it at once, go to the bottom of it, and cure it, and then see that it stays cured.

## CHAPTER IX.

### THE SOLICITATION OF FREIGHT—(Continued).

- § 1. Soliciting from the Other End.
- § 2. Routing Orders.
- § 3. The Story of a Day's Work.
- § 4. The Solicitor and His Superiors.



## CHAPTER IX.

### THE SOLICITATION OF FREIGHT—(Continued).

#### § 1. Soliciting From the Other End.

Up to this point we have been learning the general principles of solicitation and their application to the shipping of freight. This freight, going out, is important, and most solicitation is based upon securing business moving from your city to other points. This is so because in most instances the rate of freight is included in the price of the goods, and the shipper therefore controls the routing. Even though freight is not prepaid, the amount of charges collected at destination is allowed to be deducted from the invoice, in other words the freight is F. O. B. destination.

Most solicitation is based on particular business, and very little is general. That is, the solicitor is looking for a particular car, a particular shipment, or a particular lot of several cars. This individual solicitation is carried on in most cases by the coöperation of two solicitors working for the same line, one at the shipping point, which is also the routing point, who secures the shipment, and one at the destination, who gives the information to the solicitor at the other end which enables him to secure the shipment.

So far, we have followed the work of the solicitor who secures the shipment; we will now take up the work of the solicitor who supplies the information, and who works from the other end.

You will remember that our friend Jones of the East &

West Railroad came into the office of his prospect, knowing that a certain car was to move, and surprised Mr. Brown with his knowledge. He explained his information by saying that his general eastern agent had obtained the information from the consignee, and had wired out to his office. Jones, you will remember, was soliciting business which originated at a point which was not on his line.

Every railroad of any size maintains in all the large cities solicitation offices, as explained in the last section. These offices are in charge of a general agent, general eastern agent, general western agent, etc., as the case may be. Their duties are two-fold, to obtain shipments moving towards their line which their solicitors, at the points on their line to which the shipments are destined to move, obtain information of, and to obtain information of shipments to move to the city in which they are stationed from points on their lines, which information they transmit to their solicitors at those points. The same dual capacity is manifested by the solicitors who are stationed at points on their own line, in obtaining information as to incoming shipments, and using information supplied by others as to outgoing shipments.

This information is turned in each night by each solicitor, is compiled by a clerk, and arranged according to the out-of-town offices to which it is to go, and is forwarded to those offices by wire that night in form somewhat as follows:

L. E. Cook, G. W. F. A.,  
Chicago, Ill.

2 cars shoes Brown Bros. for Jas. Lloyd Pink Line; car machinery Chicago Boiler Works for Sampson & Co., B. & C. 15 cars Corn Gaylord export Naples; etc., etc.

JOHN GIFFORD.

Of course, this telegram is sent in code, so as to economize in words, but when decoded it means that Brown Bros. is going to ship two cars of shoes to James Lloyd & Co., routed via the Pink Line; that the Chicago Boiler Works is going to ship a car of machinery for Sampson & Co. and the B. & C. gets the initial haul; that Gaylord & Co. are to ship 15 cars of corn for export to Naples; and so on. Then the solicitors who solicit business from these firms get copies of the part of the wire referring to them, and off they go to clinch the business. No doubt at the same minute their competitor down the street is reading a wire bearing the same message and will be after the same cars.

We have seen how these shipments are solicited after the information is received, now we want to learn how to obtain the information. Let us analyze these three shipments in detail.

James Lloyd & Co. is (we will imagine) a large retail shoe dealer. In addition to his custom trade, he sells several well-known brands, among them those of Brown Bros. of Chicago. Now, in soliciting business coming to you, you will usually see the purchasing agent, rather than the traffic manager. Most large soliciting offices have men especially assigned to inbound work. These men make a specialty of obtaining from purchasing agents or buyers the names of the concerns from whom they buy. So the eastbound agent sees the purchasing agent of Lloyd & Co. and finds out that about once a month they replenish their stock of Brown shoes by a two-car shipment. He keeps close track of the time when that shipment is about to be made, confirms it possibly by another call, or a telephone conversation with the purchaser, and wires the information to the office that will see Brown and get the business, if possible.

Another way of obtaining the same result is to search out the buyers from the small cities who come to the large cities to purchase goods for their stores, and whose purchases will probably be shipped by freight. They are usually very approachable, and you can find out from them who are the firms from whom they are buying, when the goods are to be shipped, and also the location of their store in their home town in relation to the delivery yards and stations of the various railroads entering it.

A third way is through the trade papers, or the commercial newspapers. Take building materials for example, there are all sorts of architectural magazines and builders' magazines which list the new buildings under contract. From this, you will be able to ascertain the name of the contractors and you can interview them to see what materials they are using, and from whom they will buy their bricks, sand, cement, steel, lumber, and other materials. This information can then be passed on to your representatives in those cities for their attention. Besides the building trades, there are all sorts of other trades which have bulletins in which important contracts are mentioned. If these are read carefully and followed up, many cars can be obtained. The commercial newspapers are also a valuable fund of information. Particularly the lists of steamer manifests, showing the goods arriving from abroad, will give you a line on a large volume of business which you may induce to ship over your line. In addition, these papers give you a summary of the activities in almost every line of trade, which will keep you informed as to the volume of business which may be expected to move in the near future. Most traffic organizations maintain a regular clipping bureau for this purpose.

The ordinary daily newspapers will once in a while give an item of information which will be useful. Such an item

as this, for instance, would not seem to hold out much promise:

### IROQUOIS COMPANY EXPANDS

Irving H. Roberts, President of the Iroquois Grocery Company, announced yesterday the approaching opening of new stores of the Company in Harrisburg, Pa., and Richmond, Va. This will make 38 stores under the Iroquois management.

A wide-awake solicitor saw this notice, and got busy at once. He called upon Mr. Roberts himself before he went home that night, and opened negotiations with him which led to his railroad obtaining not only the fittings and fixtures of the two new stores, but the entire stock for each of them, and the prospect of more business each week as these stocks need replenishing.

So be sure and don't overlook any possible source of information.

To refer back to the mention made of a pipe factory, some chapters back, and the amount of oil used. The bright solicitor would say:

"You use quite a bit of oil, Mr. White."

"Yes, pretty nearly a barrel a day. Of course, we drain the oil off those turnings, but still we burn up quite a bit of it."

"Buy it here, I suppose?"

"No, out of town."

"In tank cars, eh?"

"No, we have no reserve storage space. We buy about a week's supply at a time, from the North Pittsburgh Oil Company."

There you have the name of the firm your brother solicitor can attack for this oil business. If your customer doesn't bite so quickly, perhaps you can lead him around

to his oil room, where you can note the name of the concern on the head of the barrel, or, if this doesn't work, you can ask him frankly for the name, and solicit his co-operation in giving you the business.

Let us take up now the export shipment to Naples. This information may have been obtained in this way. The solicitor who is on the hunt for export bookings calls at the offices of the various steamship lines every day, and obtains from them a list of the contracts already let for space on their vessels. They then get busy on these shippers. If the space is taken in the name of some freight broker, they may obtain the information from him, as these freight brokers are usually interested only in the ocean transportation. In the case of grain, perhaps the order is being handled by a broker on the local grain exchange. He would not be interested in the routing, but you can find out from him the name of the seller, who will control it. Maritime journals or custom house bulletins will also offer information as to exports, while if you have a friend or an acquaintance whom you have met at a traffic club, who is in the employ of a steamship company, he may be able to put you next to many export orders you would not otherwise hear of. Every line has some one officer, usually designated by the title of Foreign Freight Agent, who attends to the booking and handling of all export freight, steamer space for which is not already contracted for at the time of shipment. He also has charge of the transfer and handling of all export shipments, whether moving under through bills of lading or otherwise. He usually has several solicitors directly under him, who confine their activities to the solicitation of export and import freight.

Now let us look into the car of machinery for Sampson & Co. via B. & C. Railroad. The B. & C. Railroad

has a general agency in New York with several bright young solicitors working for them. Sampson & Co. is a contracting firm which has bid on the construction of a building, which requires a heating plant. The B. & C. Railroad office, being wide awake, reads the papers very carefully, and has noted the fact that the Sampson firm got this contract. The clipping is placed on the desk of the solicitor whose route lies near the office of the Sampson firm. So he goes there and asks for their purchasing agent.

"Good morning, Mr. Sampson," he says, for the purchasing agent happens to be a member of the firm. "I see you have got that contract for the Prince Building."

"Yes, what can I do for you?"

"Well, there must be something you will buy out in our territory, and I thought you might be persuaded to give our line the handling of it."

"Let's see now, where do you run to?"

"From Chicago to Buffalo, with branches to Cincinnati, Indianapolis and St. Louis. How about limestone from Indiana?"

"No, we aren't going to use anything but concrete."

"Well, steel rods, then, from Ohio Steel Company."

"No, they'll all come from Pittsburgh. I'll tell you, though, we've got a boiler and some machinery that will come from the Chicago Boiler Works. I'll give you that if your rates are O. K."

So the deal is clinched, and the B. & C. Line has secured the haul on this shipment from Chicago to Buffalo.

After walking a few blocks the B. & C. Line solicitor meets a solicitor for a trunk line, whose route is also in that district.

"Hello, Bill," he says, "how's the rush?"

"Pretty fair," replies Bill, "just got a car for St. Louis from old Joe Graham."

"You don't say! Is it routed beyond your line?"

"Not that I know of."

"Good, I'll clinch it, and by the way, in return for that tip, there's a car to move from Chicago Boiler Works to Sampson & Co. via our line. Get busy on it."

So when the solicitor for the trunk line goes back to his office that night he reports on this car, and hence the telegram to their general western freight agent, which, let us hope, was productive of results.

This is an example of the work that is done through connections. As there is very little business that is local to your line, most of it must necessarily move in connection with other lines. This business is often the most profitable business to secure, as it usually gives your line the longest haul. It is important then for you to keep in touch with the agents and solicitors of connecting lines stationed in your city.

If you are stationed in a city off your line, it is absolutely necessary for you to be on the most intimate terms with the representatives of all the lines which can give traffic to your line. Make friends with the men in charge of their soliciting offices, with the solicitors themselves, and also with the station agents and other employees of each of them. You must also be thoroughly familiar with the location and conveniences of all their stations. This is more difficult than when you are on your own line, for there are so many points at which freight to or from your line can be received or delivered.

The knowledge of these stations, and of the city in general, will be most important, for if you are soliciting business "from the other end," the principal part of your activ-

ity is in obtaining information for the use of your company's representatives at the shipping point, and that information must be accurate and reliable if it is to be of any use.

This intimacy with the representatives of your connections is necessary also if you are to get information from them voluntarily, as mentioned above. If you meet a friend on the street he is more likely to tell you of his visit to Sampson than he would if you had only a bowing acquaintance with him. At the same time it will lead to obtaining other business.

There is a great deal of business coming to a line each day, particularly less carload business, which is not routed. This freight is delivered to the freight stations of the initial line, with no designation as to how it shall move to destination. The initial carrier is therefore obliged to forward the shipment by the route by which the lowest all-rail rate applies, and as most points which are reached by two or more lines carry the same rates by way of each of them, the initial carrier may use its discretion in routing this "unconsigned" freight.

There is usually some one official who is authorized to route this unconsigned freight or to issue instructions as to how it is to be routed, and it is important for you to be on good terms with this official if you want to obtain any of this unconsigned freight. He usually allots this freight on a reciprocal basis, that is, he tries to give one line as much of this freight as they give him coming the other way. This is particularly true of carload business, and there is much good-natured rivalry among the solicitors of out-of-town roads for this unconsigned business at the hands of another railroad man.

When you have obtained or have prevailed upon one of your connections to give you some unconsigned busi-

ness, take note of the shipper and call on him at once. No doubt he has other business moving out into your territory, perhaps to the same point, and you can obtain it by pointing out your advantages, and having him route the business all the way through, so that you will not be dependent on your connection the next time one of his shipments moves.

You should also know as many of the solicitors working for your own line as possible. Some railroads have meetings once a year to which they call all their solicitors, to get them acquainted with each other. Many useful ideas can be exchanged through these meetings, and a spirit of co-operation all though the system is inculcated. If no meetings are held on your road, make it a point, when you make a trip over your line, as you should do yearly, to see and know your brother solicitors in the various cities. It will make both of you work better together if you can recall the looks of the man you are dealing with. You can, perhaps, show him some errors in his solicitation which will help him get many more cars, and, no doubt, he can find some mistakes in your methods, likewise. At any rate, you will both benefit by the friendship engendered as a result of your meeting, and your road will feel the result in increased loyalty to its interest. There is nothing like talking to a man from a distant point who is engaged in the same work that you are, for the same company, to create an intense enthusiasm in you for that work and that company. The united experience, the combined knowledge of human nature, of all the solicitors of a great railroad system is a wonderful force, a powerful magnet in attracting tonnage.

## § 2. Routing Orders.

Of all the freight which is transported by the railroads of the United States during the year, a considerable pro-

portion is routed by the shipper. The reason for this is that the shipper in such cases holds himself responsible for the safe delivery of the goods at destination, and in most instances either pays the freight or allows the customer to deduct it from the invoice. Of course, the shipper endeavors to suit his customer as to the delivery; he would not route the freight in such a way that his customer would have to cart it from one line while he was on a siding of another; but, at the same time, the shipper reserves all right to specify the initial lines and any intermediate lines, as well as the delivering line, when two or more deliveries are equally convenient.

The other class of shipments are those which are routed by the consignee. The reason for this is, either that the consignee is a large and powerful concern, and can compel the shipper to route its freight as it directs, or the consignee buys the goods f. o. b. the shipping point and pays all the freight charges to destination. In cases of this kind the consignee decides what route he wishes the shipment to travel over, and so informs the shipper, who has to make out the shipping papers in accordance with the customer's instructions.

It is evident, therefore, that on these shipments the consignee and not the shipper is the point of attack. This is usually determined when a solicitor calls upon a shipper for the business and is informed that the consignee has control of the routing. This information is wired to the solicitor at the destination, who gets on the trail of the consignee in order to obtain his promise of the business. Now, of course, when this promise is obtained, the solicitor wants to be sure that the proper routing instructions, favoring his line, are actually transmitted to the shipper, so he undertakes to see that this is done himself, and saves the consignee the trouble of doing it by means of a "Routing Order."

The "routing order" is a relic of the old days of rebates, and traffic contracts, when the railroad man distrusted the shipper, and the shipper distrusted the railroad man. In those days, if a solicitor obtained a promise from a shipper of a certain car, at a reduction of two cents a hundred pounds from the published rate, he could not be sure that another solicitor would not take the business away from him at a reduction of three cents. The shipper, on the other hand, could not be sure that the same solicitor who made him a two-cent rebate would not give his competitor three cents off. So there was distrust and much crafty dealing all around. The only way in which the solicitor could be sure he was going to get the freight was by contracting for it; having a written agreement signed binding the shipper to ship his way. This is the origin of the title contracting freight agent, a title which many solicitors hold today, though without the old-time privileges.

At one time the cutting of rates on a certain commodity had reached such a point that the railroads were actually losing money handling it. So they called a meeting at which it was agreed by all concerned that, beginning the following day, all rates would be held "at par" by all lines. During the progress of the meeting, and when the ultimate decision had been pretty well determined, one of the traffic managers slipped out of the room, and gave the message to one of his trusty contracting men. He returned to the meeting room within a minute or two, and the decision was finally made.

Meanwhile, the contracting man was running as fast as his legs would carry him to the offices of the big shippers. To one by one he told his story, and one by one they signed his contracts. By the time he had reached the last shipper the meeting had concluded, and one of

his competitors had bagged this last shipper. So, for the next month practically every pound of this commodity was shipped over one line, with a handsome "present" at the end of the month for the lucky traffic manager.

Nowadays no contracts are needed. We are all, shippers and carriers alike, open and above board in our dealings with each other. And yet the "routing order" remains. It is the last form of contract.

A routing order, as the name implies, is an order from the customer who controls the routing, to the shipper, specifying the route to be used. There are two forms of routing order, the general and the specific. The general routing order is a blanket order, given usually when a certain delivery is required. These general routing orders are usually blank forms furnished by the railroad and, when filled in, read as follows:

New York, Jan. 15th, 1913.

To Thomas Booth & Co.,  
Indianapolis, Ind.

Until further notice kindly have all freight for us  
routed in care of Ocean and Southern Railroad.

Yours very truly,

SUNBEAM ELECTRIC CO.

Orders of this kind are issued, if at all, to all concerns from whom the Sunbeam Electric Company buys, for the reason that they are on a siding of this railroad, or else that their factory is only a block or two away from that railroad's station.

The specific routing order is one issued on a single car and is sometimes in letter form and sometimes on a blank. In either event the wording is about the same.

Chicago, March 23, 1914.

McLaughlin & O'Keefe,  
Boston, Mass.

Please route car of shoes ordered from you c/o  
Boston & Western c/o North Shore Rail and Lake  
at Buffalo. Yours very truly,

KING & BAXTER SHOE CO.

These routing orders are issued on the one concern from whom the shipment in question is to be bought, instructing them to forward the freight by the route which has been selected.

The theory of the routing order is that the railroad is saving the consignee trouble. The railroad feels that if its solicitors secure a verbal promise from a purchaser that he will instruct the shipper to route the freight in care of his road, he may forget to tell the shipper this, and consequently the shipper may route the freight another way. This is especially true as regards an initial or an intermediate line, for the consignee usually does not care a great deal how the shipment is routed, as long as it arrives over a line which can give him a convenient delivery. So the routing order was invented to make the consignee's promise binding. These routing orders are addressed to the shipper, as shown above, and, if they are in the form of a letter to the shipper on the business letter-head of the purchaser, they are usually sent by him direct, and a carbon copy given to the solicitor. If a blank form is supplied it is usually issued in duplicate, or triplicate, the original being retained by the solicitor. In either event the solicitor's copy is at once forwarded to the agency in the shipper's city for use, as explained further on.

It is becoming increasingly difficult to secure routing

orders, as more and more firms are holding to the idea that honesty is the best policy and that a promise once given is binding, even if it only concerns the routing of a car of freight. Some firms, however, will always use them.

In this respect, as in all other parts of the solicitor's work, a general rule cannot be made to fit all cases. You must learn to judge each individual by himself. Imagine a sensitive individual being approached in this way by an uncouth solicitor:

"Good morning, Mr. Mann. I understand you will have some paper shortly from Charleston."

"Yes, Mr. Francis, I have just bought six cars from that mill."

"That's good. Now you know we've got a commodity rate on that paper of 26.4 cents, and that includes switching from the R. & S. to our line."

"Well, how about your time? I will need a car or two of that lot in a hurry."

"We run a special train with business from the R. & S., and that paper will be here the fourth morning after it is shipped."

"That's fine. I'll give you the first car and see what you do on it."

"You control the routing, of course?"

"Absolutely; it's all bought f. o. b. mill."

"And the mill understands that?"

"Certainly."

"And you will tell them to route it our way?"

"I sure will."

"Would you mind signing this routing order?"

Notwithstanding all Mr. Mann's promises to see that the business was properly routed, notwithstanding the fact that he obtained it so easily, friend Francis makes the big mistake of asking for a routing order. Of course Mann

at once gets the impression that Francis does not believe what he has told him, and it naturally riles him.

"Well, I declare," he exclaims, "won't you take my word for it?"

"Certainly, certainly, Mr. Mann," says Francis, realizing too late his mistake, "but I just thought it would be safer."

"Safer! Well, my young fellow, if you think anything is safer than my promise you've got a lot to learn. I won't be hard on you this time, for its your first offense, but if you ever again ask me for a routing order on a car I've promised you, you might as well forget what I look like, for it will be the last time you'll ever set foot in this office."

On the other hand, there are some men with whom a binding promise is essential. They may not deliberately fool you, but at times they may unintentionally deprive you of a car you had counted on.

Take, for instance, a man you may see today. You obtain his promise of a car, but you trust him, and have judged it unwise to ask him for a routing order. The days go by, the time for the car to move approaches, and no car appears on your reports. You take it up with your agent in the shipper's city, find he had called on the shipper after receiving your message, but found the shipper had already received an order to route the freight another way. You had probably not left him half an hour before a competitor came in, and not being as careful of feelings as you are, asked for and got an order, which he used to good advantage.

And so you must judge each case for itself. If you know the purchaser well, if you have reason to trust him, if he has proved himself worthy of trust in such matters on former business, do not think of asking for a routing order. If, on the other hand, he seems shifty, and

easily influenced, or forgetful and careless, be sure you ask for an order, and be sure you get it.

If a man means what he says when he promises you a shipment, he should not object to confirming his promise in writing, and many of these men will call in a stenographer at once and dictate a letter to the shipper while you wait, and without any asking on your part. A shipper may, on the other hand, be sensitive, like Mr. Mann, and jealous of his word, and prefers not to be asked for any written guarantee. After all, this sort of man is perhaps the best, for, being so careful of his reputation for honor, he will never route a promised car against you.

Then there is the other type, who prefers to give routing orders. This man usually has a form of his own, and fills it in with a great blowing of his own horn and a congratulatory remark that you are lucky to have obtained the shipment. He wants you to be impressed with his power to control this routing, and he wishes to be on record to that effect.

In looking for a routing order, therefore, it is necessary to judge your man as carefully as you did when soliciting outgoing business, and ask or not ask for an order as your judgment dictates. Of course, your judgment may once in a while dictate wrongly, but that is only natural; we are all human, and are expected to make mistakes once in a while.

When in doubt, don't ask for a routing order. They are really not a necessity between men of honor, and should not be necessary to any one. Their day of usefulness is over, and when the day comes, and it is coming, when the representative of every shipper and carrier will meet as man to man, frankly and honestly, a verbal promise will be as good as a bond, and the routing order will be, like the rebate, a relic of a bygone past. Until

that time comes, and while there still are routing orders, we must know how to handle them.

If it is difficult to get them, it is twice as difficult to use them. When a routing order is obtained and mailed to the shipper's city, it is the duty of the solicitor in that city to take this order, and call at once upon the person to whom it is addressed. It is not just that you are to perform a delivery of the message, but you must be sure that the order will be followed up.

Great diplomacy is necessary here, too. No shipper likes to acknowledge that he does not control freight. If he is selling to a customer who demands the privilege of routing, he wants that privilege kept as secret as possible, in order that he may not lose any of his power with the solicitor. You must be very tactful in approaching a man of this frame of mind.

Another difficult proposition is the man who actually does control the routing. There are consignees as well as shippers who like to impress a solicitor with their power, and who, therefore, will sign a routing order on anything coming in to them, from a car of steel to a 25-lb. keg of nails. When you approach a shipper who actually himself controls the routing with an order calling on him to favor a certain line he will probably go up in the air.

"Don't you know better than that," he will shout. "Don't you think my time is more valuable than to pay attention to those routing orders. I route all the freight of this concern, whether it is going to the King of Siam or to John Doe."

"Yes, I know," the trembling solicitor will say, "but you see Crawford & Co. have asked for our delivery, and I hope you can comply with their request."

"Now you're talking, Son. You talk your line to me,

and I may give you the business, but I want you to understand that it is not because you brought me Crawford's order, but because you convinced me yourself. If you can do that the car is yours. I've made it a rule in most cases that when anyone comes in here with a routing order I'll route the freight any way but over that line. I don't like being dictated to."

This is the attitude of a great many shippers, and although the idea of deliberately taking freight away from a line that holds a routing order is no doubt an extreme penalty, we can at least sympathize with the man who is asked for business, and who, when he says he will think about giving it, is told "I've got a routing order for that car." There's something so cocksure, so annoying in this attitude on the part of the solicitor that many shippers are at once antagonized.

Do not imagine for a moment that because you hold a routing order you can be sure of getting the freight. Freight is routed on the basis of rates, and service, not because someone at the other end has been already persuaded. If you hold a routing order you should be doubly careful to make a good impression on the shipper. Solicit the business strictly on its merits, and if you are favored you can say to the shipper:

"Well, you see your customer agrees with your opinion of our line," or something of that nature.

If he hesitates, and says, "You know the consignee really controls the routing," then you have a chance to show him your routing order and say:

"The customer has already asked to have it routed our way." This will probably save the day.

The solicitor must be in all things tactful, a diplomat; and in the handling of routing orders, both in getting them and using them, this diplomatic quality will be more use-

ful than in any other form of solicitation. Do not forget to show due deference to the position of both the consignee and the shipper. Humor them, accede to their whims, and make both of them want to use your line. If you and your fellow solicitor on the other end can accomplish this happy result there will be no necessity for routing orders.

The word "order" in itself is suggestive of command, and though we are all soldiers under general traffic, we prefer to have our minds persuaded rather than commanded.

### § 3. The Story of a Day's Work.

Having, in the preceding chapters, studied the general principles applying to solicitation, let us now describe graphically how they are used in every-day life. It is much easier to understand what the various qualifications of the ideal solicitor should be if we can see him at work, following his daily task. We will, therefore, imagine ourselves as the spirit beings which the old Fairy Stories tell us hover about each mortal. We will follow our solicitor through a day's work, and report his calls, his duties and his various activities from the time he reaches his office until he goes home at night.

John Henry Jones is his name, and he represents the Atlantic & Lakes Railroad, a trunk line reaching from New York to Buffalo, and connecting at the latter point with other railroads running to Chicago and points west. He is a neat, clean-looking type, about thirty years old, and is well posted in his chosen profession. He knows his line thoroughly, and the officials of his own and connecting lines which it is necessary to know.

He arrives at his office about half past eight on the morning on which we have chosen to accompany him. He greets his fellow workers with a smile, hangs up his

coat and hat, and sits down at his desk. He finds there the following papers. First, the tissue copies of the way bills covering the shipments of the day before which he had secured; a list of the cars and the shippers of them culled from the various telegrams received that morning from the agents of his road all over the country; a list of "tips," bits of information culled by his brother solicitors or by his chief; several trade papers, with marked articles, and a brief note from his chief attached to a file of papers, "see me about this." Several letters in answer to tracers are also there, and a check in payment of Green & Co.'s claim.

He first takes up the waybills, opens the drawer of his desk and pulls out a book. "Billing Records" it is marked. He writes in it the car numbers, initials, shipper, consignee, destination, contents, waybill number, date and weight of each car of which he has a waybill. He then looks through the book and makes a memorandum on a sheet of paper, "16486 CP 2/6 Bflo? 24321 R & W 2/5 Cleveland? 18419 AB 2/4 Chicago?"

He then gets up and walks to the desk of the tracing clerk. He finds there the passing records at Buffalo, Cleveland and Chicago, from the assistant general freight agent of his line at Buffalo, the commercial agent at Cleveland and their general western freight agent at Chicago. He notes from them that 16486 CP passed Buffalo at 8:50 P. M. on the 7th; that 24321 passed Cleveland at 10 P. M. on the same day, and that 18419 arrived at Chicago 11 A. M. on the 7th. He goes back to his desk and enters this information in his books.

He then puts the waybills to one side and takes up the letters referring to tracers. These he enters in a book, "Tracing Record." He then enters the claim check in a book, "Claim Records." He makes a note of two claims

which are overdue, and one tracer which he has not heard from, and takes the memoranda to the claim and tracing clerks, respectively, and asks them to report on them as soon as possible. He hands to the tracing clerk also two new requests for tracers which he has noted in his tracing book and which he has given identifying numbers.

He is then ready to lay out his work for the day. He makes a list of the men to call on, first Green & Co., relative to the claim settlement, then a list of names from the list of information received from out-of-town agents, then the names on the list of tips, and also the name of one shipper on whom he has received a routing order. He then looks through the marked trade papers and adds several names to his list for the day, and also makes a list of others to call on another day, when they will be "ripe." He then takes this list and lays out his "route." He starts first with a shipper who has a car for St. Louis which it is very important that he should get, then he takes one near to that shipper, and so on in turn, trying to save time in going from place to place as much as possible.

When this list is made out he reads over the papers about which he is to see his boss, so that he may be prepared to talk to him about them.

Finally he takes up his telephone. "Charles 1872," he says.

"May I speak to Mr. French, please," he asks, when the number he has called answers.

"Oh, Mr. French, this is Jones of the A. & L. Your car 18419 AB for Flint and Gander arrived in Chicago yesterday morning at 11 o'clock. Yes, that was good time, wasn't it. No, not at all. No trouble to call you at all. Yes, indeed, I'll be around to see you in a day or two. Good-bye."

While he is talking the boss walks in, and when Jones is through he takes his papers and goes to the boss' office.

"Can I see you now, Mr. Bull," he says, "I want to get down to see Gray about that car of paint for St. Louis."

"Come right in, Jones," says the G. E. F. A.

"You wanted to see me about this Solomon matter?"

"Yes, what do you think about it?"

"Well, I see the general manager isn't so crazy about putting on extra 55."

"No, he don't seem to be, and the big boss wants to know just how important it is."

"Well, I dope it out this way. This stuff of White's ordinarily goes out in 72, which doesn't make Buffalo until too late to get 41 on the R. & W. That means that he's a day late in making Peoria. Now, the Yellow Line takes that business right through, and beats us a whole day. The trouble is in getting White's stuff into a fast train. They can't very well hold 55 for it, I appreciate that, but White will give us five cars a day, and I know of some other business which I think we can get that can fill out the train, together with some business that is now being handled in 72, which would fit in nicely in this extra."

"What's this other business?"

"Well, Mr. Adam has a couple of cars a day for Toledo."

"That's on Jenkins' route."

"Yes, and Lockwood has some business for Indianapolis; he's on Palmer's route. Then you know old man Solomon is interested in the Blackburn Rubber Company, and I think you can get him to swing their Elgin business over to us if we make good on this proposition."

"Well, Jack, I think you've proved your case. I had about made up my mind to recommend it anyway, but now I'm sure it would be a good thing. I think I'll see if I can't get some of Fred O'Brien's Italian olive business

for this train of yours. We'll have to call it the 'Jones Special.' "

"None of that, boss! By the way, I got Green's check this morning."

"Good work, now maybe he'll realize that the old A. & L. can give him some real service."

"I hope so—so long."

"So long, Jack. Keep working."

Exit Jones. It is now nearly ten o'clock, and Jones puts on hat and coat, takes up his list, his claim, his routing order, and his other papers, and starts forth on his quest for business.

His first stop is the Peerless Paint Company. He presents his card, asks for Mr. Gray, and is soon ushered into his presence.

"Good morning, Mr. Gray."

"Good morning, Jones. You're around early this morning."

"Well, you're a popular man, you know, and I knew I'd have to be on the job early if I wanted to beat out the other boys."

"What's on your mind?"

"Well, you know I've been after this St. Louis business of yours for a long time, and I've never had a chance at it yet."

"You get the Rochester business, don't you?"

"Yes, but you know we don't get as long a haul on that as on St. Louis, and besides you know nobody can beat us to Rochester."

"Oh! they can beat you to St. Louis, then."

"No, they can't beat us, but they can tie us. We can do as well as anyone."

"You're the first solicitor I ever heard who couldn't make his line beat everyone everywhere."

"Well, I could, but I know you'd find out the truth sooner or later."

"And the truth is?"

"That we can make fourth morning. That's all any line can do. Besides we do it, and some of the other lines only say they do it."

"Will your line do it on this car?"

"Not only on this car, but on every car."

"You're taking a long chance making that statement."

"No, I'm not. Look here."

And Jones pulls from his pocket a list he had compiled of various cars forwarded to St. Louis, showing the dates shipped and the dates they arrived at St. Louis.

"Don't that prove the case? You can call up any one of those shippers and see if they haven't got the service we claim."

"Well, Jones, you've certainly got a persuasive way with you. I guess I'll have to give you this car for a trial."

"That's all I want, Mr. Gray. 'Once a customer, always a customer,' that's our motto. Now, when does this car go?"

"Tomorrow."

"Want a big car?"

"Forty-footer."

"She'll be ready at Pier 82 at seven o'clock. Thanks, Mr. Gray."

"You're welcome, old man. Good-bye."

So Jones, having secured his first car of the day, departs. He checks Mr. Gray's name off the list, and notices that the next visit is to be paid to the Liberty Stoneware Co. This concern's name had come to him in an excerpt from the night letter of their Memphis agent: "Car tubs Jamestown Building Co. from Liberty Stoneware Co." Jones has never seen this concern before, as they have

just moved into his district, so he does not know their traffic manager.

He walks in, and says to the guardian at the outer gate:

"I am Mr. Jones, representing the Atlantic & Lakes Railroad. I would like to see your traffic manager."

"Traffic Manager?"

"The man who has charge of your out-of-town shipments."

"The shipping clerk?"

"Well, I don't know. Is there some officer of the company who looks out for such matters?"

"Maybe Mr. Kleinert would know."

"Will you take my card to Mr. Kleinert, please?"

After a wait of several minutes, Jones is asked to come in.

"Good morning, Mr. Kleinert."

"How do you do."

"Very well, thank you. Mr. Kleinert, I don't know whether you are the gentleman who can help me or not."

"Why did you ask for me, then?"

"Well, I asked for the man who had charge of out-of-town shipments—deciding what railroad shall carry them."

"I'm the man."

"Then I'm in the right place."

"Well, what do you want?"

So far, Mr. Kleinert seems to be rather gruff, and short in his answers. Jones notes this, and wastes no time getting to business. However, not a detail of Kleinert's appearance or the furnishings of his office are lost on him. He has a mental picture of him already.

"I came to see you about a car of tubs for Memphis, Tenn."

"Memphis, Tenn. You must have the wrong place."

"For the Jamestown Building Co.?"

"Oh, that? Why, we put in a bid for tubs for that Eclipse Laundry down there, but I'd forgotten it was Memphis. We haven't got the contract yet, though."

"I heard you had. I got a wire from Memphis this morning."

"Well, I'll be hanged," Kleinert exclaims, and presses a button.

The office-boy enters.

"Ask Mr. Jacobs," Kleinert says, "whether he's heard anything from that Eclipse job?" The boy departs.

"How do you like this location, Mr. Kleinert?" asks Jones, to keep the ball rolling.

"Good enough. We're nearer the freight station."

"Oh, yes, the P. & O. is right around the corner."

"Where is your station?"

"Pier 82, six blocks from here, is our nearest station."

Just then the office-boy returns.

"Mr. Jacobs says he just got a telegram that we'd got the Eclipse job."

"Now, Mr. Kleinert, we'd like to have that car."

"Do you think I'd truck it all the way to Pier 82, with a freight station around the corner?"

"I wouldn't ask you to, if there were not other advantages."

"What do you mean? Have you got a lower rate?"

"No, but we have a train that makes special connections for Memphis. We can take your car out of here on our 61 which makes Memphis in six days.

"Six days, you're crazy. Why, the last car we shipped to Memphis took two weeks."

"Was that car shipped over our road?"

"No, by the Seneca & Binghampton, I think."

"Well, you should try us on this car."

"Not if I know it. I'm going to use the P. & O. this time and save cartage."

"You don't want to save cartage at the cost of time, do you?"

"Well, they won't expect the car for two weeks, so what's the use of time?"

"Wouldn't they be better pleased if they could get your goods in six days? Wouldn't they be more apt to favor you on other business?"

"They might, but how do you know the P. & O. won't get there in six days, too?"

"Perhaps they will, but I know we can, and I'd like this business."

"Well, I'm sorry, but I can't give it to you."

"Won't you try it, anyway?"

"No, I tell you, No!"

"There's no chance of your changing your mind?"

"Not this time."

"Well, will you give us a chance on some other business?"

"What other business?"

"Any we can handle."

"Buffalo?"

"You bet."

"I'll have a car for Buffalo next week. Come and see me Monday."

"All right. Thank you, Mr. Kleinert. Good-day."

"Good-day."

So Jones, while he did not accomplish his mission, made a good start for some other business, and hopes to get a Memphis car in the future. He makes a note to see Kleinert on Monday, and proceeds to his next victim.

This happens to be Green & Company, where he is to leave his claim check.

"Well, Mr. Sturgis," he says cheerily, as he comes into Green's and sees their traffic manager, "I'll be a welcome visitor this morning."

"Why, you're always welcome, Jones."

"Now, Mr. Sturgis, don't try any kidding. You know when I was here two weeks ago, you didn't have a nice word to say to me."

"Oh, about that claim. Well, I should have known better. You're not in the business of settling claims, that's up to that old claim department of yours, that takes about two years to pay anything. Why, I filed that claim with them eight months ago, and all I ever heard of it was an acknowledgment that they had received it. I suppose it's still on the bottom of the pile."

"Well, I looked into it, as I 'phoned you last week, and found that it was in the hands of the D. and F., being investigated."

"That don't help me any."

"Well, maybe this will," says Jones with a triumphant air, as he pulls the check from his pocket.

"I'll be darned," is all Sturgis can say. "So you can help me on claims after all."

"I try to help in any way I can."

"So I see, and I'm going to reward you now for this."

"I'm not looking for payment, Mr. Sturgis, but if you've got a car of freight lying around loose—"

"This isn't a car of freight, it's a good many cars of freight. You know we get a car of bottles every week from the Fostoria Glass Co., I'm going to let you have that business."

"Now that's bully of you, fine of you!"

"Do you want an order on it?"

"If it's necessary. Here's a blank."

"O. K. I'll fill it in."

Jones departs a few moments later with his reward. It reads:

Fostoria Glass Co.,  
Fostoria, O.

Gentlemen:

In future, until further notice, please route all freight for us c/o Atlantic & Lakes Railroad at Buffalo, and oblige. Yours very truly,

GREEN & COMPANY,

Per W. P. Sturgis, T. M.

Jones' next call is on Farrand & Fuller, manufacturers of chairs. These people are small customers and do not employ a traffic manager. So Jones walks around to the shipping department, where rows of trucks are standing loading up with city business, or unloading the frames "in the white" which they have brought in.

Standing by one of the trucks checking the chairs onto it as they are brought out from the factory, is a tall slim young chap, about 24 years old. It is Eddie McCoy, the shipping clerk.

"Hello, Eddie," says Jones as he walks up to him, "how are they going?"

"Say, Jones, you better keep away from me. I'm liable to shoot you on sight."

"What's the matter, Eddie?"

"Matter! Why, holy Christmas, everything's the matter. You know that car coming in from West Virginia?"

"Yes, she got in last night."

"Oh, you know that, do you? Well, it's too bad you don't know the rest of it. I sent down two trucks there this morning at seven o'clock, and they're there yet."

"What's the trouble?"

"The driver just called me up and said the car ain't placed yet."

"That's funny. Can I use your phone?"

"Sure thing. Right inside."

Jones at once gets the agent on the wire.

"Hello, Tom, this is Jack Jones. What's the trouble with that car of F. & F's?"

"I don't know," replies the agent, "what is the matter?"

"Eddie says he sent two trucks down there at seven o'clock and it isn't placed yet."

"Oh, it was placed at seven, but we had to pull it out to set that car of Leventritt up at the block, and it was out for about half an hour. It's been back there since ten o'clock, or half past nine."

"All right. Thanks, Tom."

"When did your driver 'phone you?" asks Jones, when he gets back to McCoy.

"About ten minutes ago. Around ten o'clock."

"Ten minutes ago. Why, man alive, it's nearly twelve now."

"Is it? Gee whiz, so it is. How time flies."

Jones explains the details to him and Eddie is satisfied.

"What's this you're loading, Eddie?"

"Car for Lansing, Michigan."

"Is it started yet?"

"No, it's going on the B. E. & W."

"No it's not, it's going on the A. & L. We've got a nice fifty-footer down there; just got in yesterday loaded with oats, and it's unloaded today. Will you use it?"

"All right, I will. I didn't promise this to Nicoll, but I thought I'd see if he'd know I gave it to him."

"He'll know he's lost it all right, eh, Eddie?" and with a laugh and the gift of a cigar, Jones departs.

He then steps into the nearest drug store and telephones the agent to save the fifty-footer for McCoy, and as it is now twelve o'clock decides to stop in at Foltz's and get a bite to eat.

The first person Jones sees when he enters Foltz's is Billy Murray, the traffic manager for Siebert's, the big wholesale dry goods house.

"What ho, Jonesy," says Billy, "Come and sit here." And he points to an empty chair opposite him at the table.

"Just starting," he continues, as Jones removes his coat and hat and sits down. "Have a cocktail?"

"Give me a rain-check," says Jones, "I'll cash it some other day."

After giving his order, Jones resumes the conversation.

"Well, Billy, how's the rush?"

"Oh, so so. We're shipping that car of sheeting to the Coast today."

"That's the stuff. Everything all right?"

"You bet. Say, Jack, if they all gave the attention to business you do, they'd get more of it."

"Stop it! Stop it! What do you think I'm in business for? If I don't see that you get the job done right on this car, you won't give me the next one, will you? That's a common sense business proposition isn't it?"

"Well, just the same, you've been getting about every car we've shipped in the last five years. That's since you and I struck each other."

"Yes, but if we gave you a raw deal on a car, you'd just as soon give the next one to Joe Williams."

"Well, not so quick as that, maybe, but just the same, your line sure does give the service. Day in and day out, like clockwork. Of course, you fall down once in a

while, but it's only once in a while, and I guess we're all apt to make a mistake now and then."

"Do you ever make a mistake, Billy?" Jones asks.

"You bet I do, and I nearly made a bad one this morning. I had an order to send 5,000 yards of china silk up to Lacy's, and I had it all packed up ready to ship to Denver. What do you know about that?"

"How did you find out your mistake?" asks Jones, after swallowing a mouthful of finnan haddie.

"Why Oscar Edwards of Lacy's called me up and asked when I was going to send it up. He's getting a car ready for their Chicago house, and he wants the silk to go in it."

"When is it going?" asks Jones, realizing he has struck a trail.

"Not for a week," replies Murray. "No hurry, Jack."

"Oh, you see the point, do you?"

"I know you never lose sight of a car."

"Well, this is one I'll have to lose sight of, for Lacy's is up in Fred Humphries' territory."

"Well, Jonesy, old scout, I've got to get back to the grind. So long."

"So long, Billy. Thanks for the tip. I'll be around to see you in a day or two."

Having finished his own lunch, and made a note of the tip received from his friend, Jones starts forth again in search of new quarry.

His first stop is the American Knitting Mills, right around the corner from Foltz's. Neil O'Brien, a big hearty Irishman, is the traffic manager.

"Well, if it isn't old A. & L. Jones," he exclaims, as our hero approaches.

"It sure is, Begorra," says Jones.

"The top of the mornin' to you."

"All's merry in Kerry."

"Well, A. & L., what can we do for you?"

"Why, Mr. Neil O'Brien, we hear you've just signed a contract to send six hundred thousand sweaters to the poor homeless Mexicans, and we want to get that business."

"Now, what do you suppose Mexicans would be doing with sweaters?"

"I'm hanged if I know, but our representatives down in Galveston got the tip."

"No, no, my boy. It's not sweaters, it's gauze undershirts. Six hundred thousand is right, and they'll fill about twelve cars. About a pound apiece including boxes and cases."

"How are they going to move?"

"Well they're booked now to go by the water route, but go ahead, I like to hear you talk."

"I suppose you know the rate," says Jones, thus urged.

"Well, you may as well refresh my memory."

"It's \$2.52 all rail and \$2.38 rail and water."

"Wrong, my boy, wrong! I thought I'd catch you. You're still thinking of sweaters."

"So I am," says Jones, covered with confusion. "Undershirts are lower."

"\$2.12 all rail and \$2.01 rail and water," says O'Brien.

"Eleven cents! Well, I'll tell you how to beat that little game."

"Go ahead, I'm a good listener."

"Now here! When you ship that stuff by water, you've got to pack it all in cases, haven't you? Each of those cases holds how many boxes of shirts?"

"Oh, there are about a gross to a case."

"Well that's 144 shirts into 50,000 is about 350 cases to the car, roughly."

"Right!"

"And they weigh about twenty pounds apiece, do they?"

"Sixteen."

"Well, that's 4,600 pounds tare on your cases," says Jones after doing a little figuring. "Now you pay for 50,000 pounds on each car at \$2.01 rail and water, that's \$1,005 a car, isn't it?"

"You're the lightning calculator."

"Now, here's the point, Mr. O'Brien. If you ship those by water, you've got to use cases. If you ship them in through carloads by rail, you can use crates. You can take four gross to the crate, that will give you about eighty-eight crates, and supposing they weigh as much as twenty pounds apiece, you only have 1,760 pounds tare, or a saving of about 3,000 pounds per car. That means you ship 47,000 pounds by rail at \$2.12, or—wait a minute—" more lightning calculation— "\$996.40, or a saving of nearly \$10 a car."

"Say, you're some smart boy, believe me," says O'Brien. "I just finished figuring out that problem myself before you came in. See," and he shows Jones a sheet of paper covered with figures. "I'll save \$140 by shipping by rail, on the twelve cars, and I'd already decided to ship all rail, anyway. I just wanted to try you out and see if you were smart enough to find the answer. You did, and you get the twelve cars."

"You're a brick, Mr. Neil O'Brien, and I thank you."

"Well, now, see if you can figure this out. Here's a shipment," handing Jones a memorandum shipping receipt, "made on the 2nd to Syracuse, and I get a wire this morning that it hasn't got there yet."

"I'll put a tracer on it at once. A small shipment, I see?"

"Yes, but they're in a big hurry for it, and it's six days out now. Let me know, will you?"

"Sure thing. Good-bye, and thanks again for the undershirts."

"Hope they keep you warm!"

Jones leaves, chuckling, and patting himself on the back at being "smart enough to find the answer." He puts O'Brien's receipt in his pocket, makes a note of the twelve cars for Mexico, and proceeds to his next stopping place.

"Little and Livingston, wholesale grocers," he reads on the plate on the door.

"Mr. Sanburn, please," he says as he enters the office and hands in his card.

Mr. Sanburn will be delighted to see him.

"Well, well, Jones," says Sanburn, "You're just the man I want to see. We've been having a deuce of a time on our stuff for New Jersey points. Now you know we have to get that stuff there the morning after we ship it, and we have an awful time with it."

"What points are those?" asks Jones.

"Why, points on the J. & P."

"There are quite a few J. & P. points which we can take."

"That's just it. Here's the list."

After looking it over carefully, Jones looks up.

"Why we can handle all that stuff."

"Well, some of our customers want the other delivery. It's nearer their stores."

"I know, Mr. Sanburn, but goodness gracious, they'd rather get the stuff on time than save a few blocks cartage. In all those towns the stations aren't half a mile apart, some of them across the street from each other."

"Well, I'll try it, and see how it works."

"That's the idea. By the way, how's your Cleveland business going now? We don't see any of that any more."

"Why that's all going on the J. & P."

"The J. & P.! Why I thought they gave you poor service on this L. C. L. business."

"So they do, and I'm going to give that to you."

"Yes, but don't you understand, Mr. Sanburn, this local L. C. L. is small potatoes compared to the Cleveland business. Don't think we don't want it; we do, and we'll give you just as good service where we make eight cents a hundred as where we make eighty, but the point is this: why favor a road with good business that gives you poor service on small business?"

"Well, you don't want it all, do you?"

"Certainly not, but we would like to stand a chance. What I would like to have is your promise that if we make good on this local stuff, you'll give us your Cleveland business."

"And give the J. & P. nothing! Why man, I used to solicit freight for that line; I was the man that started their train 84 that takes my Cleveland business now. Why, I'll bet I paid out more money in rebates than any solicitor in this city, in my time."

"Well, when you were soliciting for the J. & P. you didn't solicit on the basis of service, you solicited on the basis of dollars and cents."

"Yes, sir."

"But that's all changed, and now we solicit on the basis of service. Here's the proposition. You're an old soliciting man yourself. Put yourself in my place. The J. & P. and ourselves give equally good service on Cleveland business—on all through business, in fact. Now, on local business, which you say is important to you, probably more even than Cleveland business, the J. & P. does not give service while we do—"

"How do I know that," interrupts Sanburn.

"You will know it, when you try us. Assuming then, that we give service on the local business, which we admit is not as profitable to us as the through business, shouldn't we also get the through business?"

"I see your point, but suppose I put it this way. I'll give you most of this local business for a while, and see how you handle it. Then I'll get hold of the J. & P. and—that is if you do handle it right—I'll tell them that I'm going to give you the Cleveland business if they don't jack up their local service. That ought to make them sit up."

"Yes, but where do we come in? We give such good service that we force the J. & P. to improve theirs, and yet we get no through business for it."

"Let's settle it this way. I'll give the J. & P. a chance, and if they make good, I'll give them half of the local business and half of the Cleveland business; the other half I'll give to you. If they don't make good on the local stuff, I'll give you all the Cleveland business. How's that?"

"That's better. Now it's up to us to make this local stuff hum. Will you start tomorrow?"

"Yes."

"All right, we'll be watching for it. Good-bye, and thank you, Mr. Sanburn."

The next stop is Koralsky and Mann, dealers in scrap metals. Although they have no traffic manager, Mr. Jacob Solomon acts in that capacity.

"How are you, Mr. Solomon," says Jones as he enters the dingy, shabby little office. "Will you have a cigar?"

"Tank you, I vill," says Solomon in broken English.

"Mr. Solomon, one of our men was passing the B. & W. station a day or two ago, and he saw one of your trucks shipping scrap. I suppose that was going to the Buffalo Steel Company?"

"Vy do you suppose dot?"

"Because it's the only steel company on the B. & W. lines."

"Vell, you're right. Vat of it?"

"We'd like to have the next car, that's all."

"Vereabouts?"

"At our 9th St. Station."

"Haf you veighing vacilities there?"

"We certainly have."

"Are they free?"

"Yes,"

"Vy I thought you charged two dollars a car."

"We did until about two weeks ago, then we cut it out."

"Dot is gut news. How about car services and demurrages?"

"They are the same as anywhere else."

"If I keep a car tree or four days, you say nodding about it, huh?"

"Why, certainly. A charge is made after two days free time."

"Vell, the B. & W. don't do nodding like dot. If I keep a car five days, yes. One dollar I pay. I am villing. But only a few hours over—no, nodding at all."

"If that is a fact, Mr. Solomon, both the B. & W. and yourself are guilty of breaking the law. You are liable to be put in jail."

"Chail? Me?"

"Yes, sir. If you accept favors of that kind."

"Vell, dot's just vot the B. & W. people tell me they vill do. I only shipped one car there and I had dot finished in two days. So I get no charge."

"That's right. But after two days there will be a charge."

"Vell, I vait and see."

"All right, but don't count on it."

"If I get stung, I try your road."

"Well, if you try our road, we'll live up to the rules."

"I know, I know. Rules is rules, huh?" says Solomon, with a wink. "They is made to be broken."

"Not our rules."

"Vell, I see. If the B. & W. stick me, I see how good your rules are."

"You'll see, all right," says Jones, under his breath. "Give them a trial, anyway," he says aloud.

"I vill. Bye-bye."

"Good-bye, Mr. Solomon."

When he reaches the outer air, Jones gives a sigh of relief at having escaped from this grafter, and his dirty, ill-smelling office.

"I hope, if he does give us a car," says Jones to himself, "that the agent will collect his car-service before he signs the bill of lading, for he'll never collect it after the car has moved. Well, it's getting on to half past three. I guess I'd better cash in this routing order on Bigelow & Emerson. I haven't seen Hendricks for a coon's age."

Thus musing, he enters the office, and at once sees Hendricks seated at his desk.

"Come in, Jones," says Hendricks, "What can I do for you?"

"Why, it's about that car for Wheeling."

"Oh, Sperry & Wright's car?"

"Yes."

"Why that's not going to move for a week yet. Some of the goods aren't made."

"Is that so? Then I'm in plenty of time to get it."

"I don't know about that. I've had three of your competitors in here this morning after that car."

"I suppose you gave it to the first one that called."

"Not on your life; I saved it for you."

"Well that's certainly nice of you. How did you know I'd be around?"

"Oh, I just had a hunch that you would."

"I guess I know where that hunch came from."

"Do you? Where?"

"Wheeling, West Virginia."

"Ha, ha, ha! That's a good one. Jones, old top, you're a dandy. What's Wheeling got to do with it?"

"Oh, I don't know. I just got a hunch that they might control the routing."

"Control the routing! What makes you think that?"

"Well, the U. S. Canning Co. is a pretty big concern, and I guess they control pretty near anything they touch."

"You're right there, Jones. Now let's quit fooling. Cough up your routing order!"

"Here it is," says Jones, laughing.

"Well, I guess we'll have to agree to it this time. The car's yours."

"Thank you, Mr. Hendricks, for saving it for us," says Jones, with a grin.

"The pleasure is all mine, Mr. Jones," says Hendricks.

When Jones leaves Hendricks' office, it is after four, and, knowing that he will be too late for his next call, he puts it off till the next day's list, and returns to his office.

A busy hour is still ahead of him.

He first empties his pockets of the papers which he has collected in his day's journey. He hands the routing order he got from Sturgis, of Green & Co., to the chief clerk, who will send it to the Commercial Agent at Fostoria, at once. He then takes out his tracer book and enters in it a record of O'Brien's shipment. He then makes out a tracing form, gives it a number of his own, and takes it over to the tracing clerk, who gives it an office number,

which Jones notes and enters in his book. He next makes a memorandum for Fred Humphries:

Fred:

Lacy's Department Store has a car for Chicago next week. Some stuff from Siebert's in it. Oscar Edwards is the man to see. Wish you luck.

JACK.

He then writes a letter to the freight claim agent, enclosing the papers in Green's claim, and also a receipt for the payment, secured from Sturgis when the check was given to him. Finally, he makes out his report for the day. This report reads as follows:

#### Report of John H. Jones for Feb. 8th.

Peerless Paint Co.—Gray. Car paint for St. Louis. Our line c/o Indiana & Missouri. Car to be shipped 9th.

Liberty Stoneware Co.—Mr. Kleinert, re car for Memphis, Tenn. Car routed via P. & O. on account of their station being nearer than ours. Got a car for Buffalo next week. To see him Monday about it. This is a new concern in this territory. They make bath tubs, sinks, laundry tubs, etc. Look like fairly large shippers.

Green & Co.—Sturgis. Paid claim for \$56.20 our No. 1861. Gave me a routing order for car of bottles each week from Fostoria, O. No initial routing specified. Routing order forwarded.

Farrand & Fuller—McCoy. Complains about placing of E. B. Car. Straightened out with agent. No real difficulty. Giving us car for Lansing, Mich., today. Unrouted beyond our line.

Saw Murray of Siebert & Son at lunch. He told me Lacy & Co. were shipping a car for Chicago next week. Passed the tip to Humphries.

American Knitting Mills—O'Brien. 12 cars shirts for Guadaloupe, Mexico. Not sweaters as reported by Galveston. Fully routed.

Little & Livingston—Sanburn. Getting slow time on J. & P. to points in New Jersey which we can handle. Will give us this local business, and if O. K. will give us some Cleveland business.

Koralsky and Mann—Solomon. Mitchell's tip of car of scrap for Buffalo, (B. & W.). Claims B. & W. charges no car-service. Will only come to us if we do likewise. Told him nothing doing.

Bigelow and Emerson—Hendricks. Car for Wheeling for U. S. Canning Co. We had routing order. O. K.

Expenses, \$1.40.

Respectfully,

JOHN H. JONES,  
Soliciting Agent.

Having now finished his daily task, our friend lights his pipe, puts on his coat and hat, leaves his report on the chief clerk's desk, and departs for the bosom of his family with the knowledge that he has accomplished one more useful day.

#### § 4. The Solicitor and His Superiors.

The Railroad Traffic Department is a large organization; not as large in numbers as the transportation or operating department, but large in its important position in the railroad as a whole. The activities of the traffic department cover everything in any way connected with the obtaining of business, from the making of the rates to govern, to the actual securing of the freight and passenger business.

The actual securing of the freight or passengers, or solicitation, is the bottom rung of the ladder, and the

soliciting agent is the lowest stone in the pyramid whose apex is the vice-president in charge of traffic. The intermediate degrees of responsibility are many and varied, and the duties are more complex the higher the position, but they are all founded essentially on the principle of solicitation, for that is the backbone in the securing of business.

Solicitation is the simplest of all positions under the traffic department, and yet the difference between the ordinary type of solicitor and the expert is great, and the greater the difference, the larger the opportunity for advancement. No man, unless he is utterly devoid of ambition, will be content to remain a solicitor all his life; but he will remain so unless he demonstrates his capacity for a higher position.

To do this he must do two things; he must master the details of the position he holds, and he must learn something about the qualifications of the men who hold the positions above him, so that, when the opportunity comes, he may be prepared to step into their shoes and carry on their work. Of course, he is not expected to know as much about the higher positions as do the men who hold them, but he should have a general idea of what they do and why they do it. Besides helping him in fitting him for a higher position, it will also help him to fill his own position to better advantage.

Take the case of rates, for example. Except for a general knowledge of how rates are constructed and what the different kinds of rates are, no further rate specialization is necessary for the ordinary solicitor. A solicitor can be a good, successful solicitor even if he doesn't know how to find a rate; he can always get rates from the general freight department or his superior officer. While this lack of expertness in rates is no bar to an otherwise

good solicitor, it is a decided bar against his promotion, for the higher officers in the traffic department are vastly more concerned with rates than they are with solicitation, though all traffic officials, from the vice-president down, look upon solicitation as a part of their work.

So, if, in addition to being a successful solicitor, you wish to graduate at the head of your class into another and higher position, you must study rates. This study will help you in many ways.

Suppose you are soliciting freight from a certain shipper, it makes no difference what he manufactures. One day he will come to you and say:

"Look here, Fleming, we've just turned out something new. It's a by-product which we have been able to manufacture out of material we used to throw away. Now, of course, it's very cheap; it's using up something that really costs us nothing, as the cost of the material is all figured in our other goods; but at the same time we want to sell it at a nice price. You see it's a substitute, an imitation, if you please, of the real goods manufactured by Van Antwerp & Company. We will compete with them in the same markets. Now I want to know what our selling price in those markets must be, and to know that I've got to figure my transportation cost."

Now, if Fleming is just the ordinary, good solicitor, without any specialized knowledge of rates, he would merely have to reply:

"Well, you'd better let me send our assistant general freight agent down in the morning. He's an expert on all these rate propositions."

Probably the manufacturer will think none the less of the solicitor for such an answer; he will not expect him to be a rate expert and he will be glad to talk to a man who is. On the other hand, how much more indis-

pensable Fleming can make himself if he can sit down at once and apply himself to the problem without sending in a hurry call for his assistant general freight agent. He will find out first what the competing article is, what is its classification, or if commodity rates apply to the markets in question. He will then look into his customer's product, find out what it is, and if the same rates and classifications will apply to it as to the competing article. Perhaps not; very likely a commodity rate on the real article will not apply also on an imitation. Then the question will be, how is it classified? Perhaps, being a new article, there will be no classification in effect which will cover it. He will then inform his customer how to proceed to have classifications applied, and to have commodity rates fixed. He may point out to his customer that, if the commodity rate on the competing article is fixed on a basis of value, his product, being of a lower value, should get a cheaper rate.

It is easy to imagine with what eagerness the manufacturer would follow a technical discussion of this character, and how impressed he would be by the solicitor's knowledge and helpfulness to him. He would certainly be a poor specimen of manhood, who, having followed the solicitor's suggestions, and having been successful in securing a favorable rate on his product, should neglect to reward the solicitor by giving him every bit of this new business which his line could handle. So it is desirable for all solicitors who are ambitious to study rate structures, and the process of making rates, if they wish to be better than ordinary as solicitors; it is essential for them to do so if they would prepare themselves for higher traffic positions.

Another useful point is a knowledge of how to obtain service. It is conceivable that a solicitor may obtain

many cars of freight without being a walking timetable. If he has a printed card, such as most railroads use, showing their freight train time to the principal cities, that is about all he can be expected, solely as a solicitor, to know. However, if he ever expects to be something above the solicitor, he will want to know why such a place can be made in 24 hours, while another place, nearer, cannot be made for 48. These are problems and questions which are decided and fixed by men in the higher positions of his own department; there are good reasons for them; and if he is to hold one of those positions some day, he should know, in general, about them in advance. If a shipper is not using your line because another line is beating you into Chicago five days out of six, you don't want to give up, or else send for your superior to straighten out the difficulty; you want to be prepared to go to the bottom of it yourself. Is his freight being put in a slow train on your line, while your competitor puts it in a fast train? Or is your fast train missing connections more often than it is making them? What do the records show, and if they show badly, what steps are being taken to remedy them? If your customer is a less-carload shipper, how are his goods being handled? Are the delays up to your line, or are your connections at fault? An instance of this is the following:

A certain large manufacturer who shipped practically nothing but less-carload freight was forced to truck a great deal of it to the station of a certain line, although he was located on the siding of another carrier. The reason was because his customers insisted on a certain time of delivery in a large territory, and for some reason this time could not be made regularly from the factory siding. It was made spasmodically, but so irregularly that business was being lost, and the trucking expedient was re-

sorted to to save the business, although the trucking cost consumed a large portion of the profit. The solicitor, whose line the factory was on, noticed the shrinkage in his tonnage, and began to inquire as to the cause. It was not long before he discovered that his line was getting a most unsavory reputation from the factory in question. The manager had expressed the opinion that they had made a great mistake in locating on a siding of this line which could give them no kind of service.

After worrying about the situation for some time, and after having many conversations with the shipping clerk (they had no traffic manager), he decided to take the bull by the horns himself. So he obtained permission from his chief to devote his entire time to the task for a week. He went to see the manager of the factory, and told him that if he would give him access to all their shipping records, he would cure the trouble. The manager agreed, and the solicitor started in. He found that most of the trouble lay right on his own line, and the balance on the factory. At the beginning of the factory's operations at this location, a certain time had been agreed upon for closing their cars, and for pulling them out, but the railroad had not been pulling them as agreed, and the factory had not been closing them; and the consequence was that the cars were missing connections which would have made the desired delivery. In a small percentage of cases, the competing line was making cars to points where freight on his line was handled in way trains. With this information at his hand, the solicitor was able to arrange the schedule on the old basis, saw that the promised deliveries were accomplished, and that through cars were made to points which competed with through cars of the other line. When all this was accomplished, though it took longer than a week, the solicitor lost his job. That sounds like a strange hap-

pening, doesn't it, after being of such service to his road, and after regaining all the business they had lost? It will not seem so strange, though, when it is learned that he had saved the factory many thousands of dollars of useless trucking cost, and had thereby created the position of their traffic manager, to which he was appointed at a large increase in salary.

The first thing that a solicitor should learn is soliciting. Know your own job like a book; let nothing escape you which will make you a master of the art, for while it is simple in itself, it is surely an art. Remember that every promotion carries with it a certain amount of solicitation, and remember also that while sloppy, careless or inefficient methods of solicitation may be passed over while you are nothing but a solicitor, if you should be promoted, your carelessness would be soon noticed. A shipper will overlook or condone a remissness on the part of a solicitor, which would earn his contempt on the part of a division freight agent.

After you have learned your own job, begin learning something about the jobs of your superiors. As stated above, this knowledge will be of inestimable advantage to you as a solicitor. The best way to learn the jobs of your superiors is to learn to know the men who hold them. Analyze them critically, seek to find why they are qualified to hold their jobs. What knowledge must they have, what sort of ability? Is this knowledge or ability something you cannot acquire? Are they aggressive where you are shrinking, are they bluff where you are mild? Do these qualities, or defects, really count, or are they personal characteristics which neither add nor detract from the merits of the man in the position?

Do not be afraid of asking questions. If these men have come up from your position, as most of them have, they

are also looking forward to the next higher step, and are preparing themselves, or have prepared themselves, to take it. They will, therefore, be asking questions themselves of the men higher than they are, and will be willing to help answer your questions. They will not bear you any ill-feeling; they will not feel that you are trying to take their jobs away; they will realize that your promotion to their job will only be accomplished when that job is made vacant by reason of their moving on to the one beyond them; and they will consequently be only too glad to have assisted in training a capable assistant to fill their shoes.

While you should not be afraid to ask questions, don't be a nuisance. There are many things which you can find out for yourself without asking a single question. The matter of records or forms can be studied independently, and so can rates. The actual operations of a soliciting office are almost self-explanatory, and by just following your superior's line of thought in tackling the various problems in which you and he are engaged together, you will be able to obtain many pointers on how you should handle the same question if it were brought up for your decision alone.

Read all you can. Nothing is so stimulating to the mental activities as reading. There are many books published on railroad matters; railroad organization, earning power, control and management. There are also traffic publications and other technical railway magazines. They will all give you knowledge of one kind or another, which, while it may not be useful at once, can be stored in the recesses of the mind for future use. Then there are the tariffs and classifications. They can fill odd moments of your time, for if you expect to be a big railroad man some

day, you'll have to know about them, and there's no time like the present to learn.

Finally, let your attitude to your superiors be the right one. Remember that familiarity breeds contempt, and avoid it. Maintain always a respectful and courteous manner to those above you. You are only a private in the great army of transportation, and your superiors are your officers. It is not for you to question the whys and wherefores of their orders; they are presumed to know their business when they fill the positions they do, and although you may think you know more than they do, you will find in most cases that you are sadly mistaken. Of course there are rare instances when a man is misplaced in a higher position. Even so, it is none of your affair to show him up; he will do that himself sooner or later. No man, unless he is very skillful, can do very much in the railroad business by bluffing. It is a business where "show me" is the watchword, more perhaps than in any other line. The man whose promises, whose bluster is not followed by actual performance, will soon cease to be a factor.

Cultivate the friendship and respect of your superiors. Do not go around blowing your own horn or attempting to show off, and demonstrate at every conceivable opportunity what you know about the railroad business. Be modest; your achievements will speak for themselves, and it is what you do which will win the confidence and respect of your superiors rather than what you say.

Do not be afraid to make suggestions. There is no system so perfect that it cannot be improved. The man who originates something is always blind to something better until it is forced upon him, while the outsider who has no personal interest in the thing, may see at once faults which can be eliminated by simple changes. If such changes occur to you in respect to anything connected either with

your own work or with the general work of your company, do not hesitate to mention them to your superiors. If they are the live, wide-awake men they should be, they will be only too glad to hear from you, and if your suggestions are practical and of real benefit, they will be an added boost for you.

When a superior officer is moved up through the death, promotion or resignation of one of his superiors, there are many solicitors from whose ranks the vacant place may be filled. There is one promotion and hundreds of applicants. Naturally, the best man ought to be chosen, and if you have not made yourself the best man, and at the same time demonstrated to your superiors by your ability, your character, and your ambition that you are the man for the job, you will have no chance at all, but will still remain one of the many, rather than one of the few.

## CHAPTER X.

### RAILWAY TRANSPORTATION METHODS.

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## CHAPTER X.

### RAILWAY TRANSPORTATION METHODS.

#### § 1. The Relation of the Operating and Traffic Departments.

The two most important physical functions of a modern railway are the securing of traffic and its subsequent carriage. Manifestly, therefore, the department which is charged with the work of securing the traffic and the department which is responsible for its movement must be operated in effective conjunction with one another. In a physical transportation sense, these two departments meet upon common ground in the local freight office, and the local freight agent is as much a representative of the operating department as he is of the traffic department.

In many of its details, the traffic department can only conduct its work effectively by observing a close relationship with the operation of the railroad. This is especially true in the distribution of cars, which must be so conducted as constantly to render available the type and class of equipment required by the traffic to be moved. This distribution of equipment is to a large extent affected by seasonal changes in the movement of traffic. Thus, the railroad during a given period will receive for transportation a large quantity of fruit and vegetables, and adequate refrigerator and ventilation equipment must be distributed throughout the producing territory in order to move the perishable traffic with the required dispatch. As to articles

requiring special equipment for their transportation, such as ore, coal, stone, lumber, live stock, poultry, fresh meats, packing house products, liquids, etc., the traffic department must locate the traffic, know the requirements of its movement, and with the assistance of the operating department, see to it that the proper equipment is furnished at the proper time and place to handle the traffic.

Many articles of commerce require in their transportation special privileges before their movement in transportation is completed. These privileges consist of permission to store, mill, manufacture, grade, inspect, etc., in transit and while the traffic department is in every sense responsible for the extension of these privileges to the traffic which it has secured for the railroad, the proper operation of such privileges could not be consummated without the physical assistance of the operating department.

## § 2. The Local Freight Office.

The local freight office is in reality a joint traffic and operating office. It is the local point of control of both the receipt and delivery of shipments of freight. In its operation it is the principal office of the railroad that the public comes in contact with. Through this office the railroad's contracts of transportation are accepted in connection with the receipt of shipments and also consummated when the delivery of shipments is effected through the local freight office.

In the larger cities, the construction and arrangement of local freight stations consist of extensive freight houses, sheds, platforms, docks, etc., with a portion of the building or buildings assigned to the local freight office.

At smaller points on the railroad, local freight stations may consist of but a single building, with a platform

sometimes covered, sometimes not. In this building the office of the local freight agent, who is also charged with the handling of the company's passenger affairs, is located. At other small points, where, however, the traffic is more extensive, a separate building will be erected as a freight department, a small portion of one end of which will be assigned to the freight office paraphernalia, the remainder of the building a covered platform or house for the handling of freight.

Carload traffic is very seldom handled through the local freight station or house. In fact, it should never be handled through the freight house. At the larger terminals, elaborate trackage arrangements are established for the receipt and delivery of carload freight. These tracks are known as team tracks, upon which freight belonging to shippers who have no track facilities at their place of business is received and delivered from carload shipments.

The modern railway terminal no longer consists simply of freight houses, tracks leading thereto and team tracks, but includes extensive trackage connections with all of the more important industries and commercial operations which can be reached with side or spur tracks. In many instances, large shippers of freight own and operate important plant facilities and systems of private tracks, and as to such shippers the railway receives and delivers their carload traffic on such sidings and industrial spur tracks. Not only is the railroad by this system relieved of the expense of handling carload traffic through its freight houses but vexatious and costly delays are avoided by the receipt and delivery of carload traffic on the consignor's and consignee's industrial or private tracks.

The issuance of shipping instructions, directions of movement, filling out of proper forms, recording of the shipments, billing, routing, expensing, tracing, etc., of car-

load shipments are handled in the local freight office in the same manner as less than carload traffic is handled.

In the subsequent sections, the functions of the local freight office will be found described in connection with the chain of transactions involved in the receipt, carriage and delivery of shipments of freight.

### § 3. The Receipt of a Shipment.

The first step in the chain of transactions involved in the transportation of freight by railroad is the delivery to the railway of a shipment for transportation.

Carload shipments are either loaded into the car directly by the consignor on his factory or industrial side-track or drayed to a public team track and there loaded into the car.

Less than carload quantities of freight are delivered at the freight depot of the railroad, handled through the freight house and stowed into the cars by the employees of the railway. The orderly procedure by the railway in the receipt of freight for shipment is to station callers, checkers and truckers at the respective doors of the freight house, which employees meet all shipments at the door and start the shipments on their way to their proper cars. Each caller is furnished with a list of the door number, track number and destination of each car on the freight house tracks for the purpose of enabling him to assign the freight as received to its proper stowing point. An employee known as a checker is also stationed at certain points in the freight house, who checks the shipments, noting the name of the consignee, destination of the shipment and any private marks that may appear thereon, as well as a description of the container according as it may be a box, crate, barrel, bale, bundle, roll, etc. The caller thereupon calls out the car number, track and door of the

car which is to receive the shipment. The shipment is then run over the scales, where it is weighed by the checker and the weight endorsed on the shipping ticket. The shipment is then trucked into the car where it is loaded or stowed by employees known as "stowers" or "truckers." In most freight houses when the trucker returns for a new load he is required to again call out to the checker the number of the car in which he placed the shipment. The checker thereupon endorses on the shipping ticket the car number in which the shipment was loaded, and signs a receipt for the shipment, which he delivers to the drayman, retaining a copy thereof for his own use.

Railroads require when a shipment of freight is delivered to them for transportation, that a bill of directions or shipping ticket be delivered by the consignor with the shipment. This shipping ticket states the name of the consignee, articles in the shipment and other data pertaining to the handling and transportation of the shipment. This shipping ticket is the first form to be met with in the long list of blanks and forms employed by railroads in the handling of freight shipments. The shipping ticket delivered with the shipment authorizes the railroad to ship the freight and deliver it to a specified person at a designated place. In addition to this shipping ticket or shipping bill, a form of receipt should be attached thereto, which, when signed by the carrier's representative, constitutes the receipt by the railroad for the shipment delivered to it. This receipt, where a bill of lading is issued by the railroad, is a part of the multiplex bill of lading form; hence the bill of lading is frequently said to take the place of the receipt for freight.

The purpose of the receipt and bill of lading is to afford the shipper tangible evidence of the delivery of the ship-

ment to the railroad and also to operate as a contract of transportation protecting the railroad from exceptional risks.

The original of the bill of lading is delivered to the consignor, or his representative, usually a drayman, and the shipment is then considered to be in possession of the railroad company subject to transportation as directed and described in the shipping ticket or bill of lading.

As railroads have adopted the uniform bill of lading in place of the shipping receipt, it has become customary to issue the bill of lading in combined form, the outside sheet being the original bill of lading, the second sheet the shipping bill and the third sheet a memorandum copy of the bill of lading.

The shipping bills or tickets, after the same have been tallied and signed by the receiving clerk, are sent to the billing department, where each is given a pro-number and turned over to the rate clerk for rating. After the shipping ticket or bill of lading has been rated, it goes to the billing clerk, who makes a waybill therefor. The waybill is numbered and contains the date of shipment, point of origin, point of destination, initials and car number, name of the consignor (shipper), name of the consignee and an accurate but abridged description of the articles in the shipment, their weight, special marks, if any, advance charges, the rate and extension of charges, and amount prepaid, if any.

In instances where a shipper's receipt is issued, it may be exchanged for a bill of lading.

#### § 4. The Bill of Lading.

The bill of lading used by railroads in the United States embodies the receipt for the shipment by the railroad, the contract for the carriage of the shipment, and also operates

as an evidence of title to the property in the shipment. There are several forms of bills of lading in use. For ordinary straight shipments of merchandise, the so-called uniform bill of lading is employed. Where shipments are consigned to the order of the consignor, with draft attached for collection of invoice price of the consignment, an order bill of lading is used. For shipments consigned for export, a special form of bill of lading, known as an export bill of lading, is issued. Special contracts for transportation are also entered into by railroads for the acceptance, carriage and delivery of special commodities, such as live stock.

Prior to the taking effect of the Cummins Amendment prohibiting limitation of liability by common carriers, a special bill of lading could be issued in case the shipper preferred not to accept the limitations of the uniform bill of lading, but desired to be insured against all risk of loss and damage.

Western railroads have in vogue a grain bill of lading, wherein the storage of the grain in case of delay on the part of the connecting line, consignee, demurrage charges, weight and kind of grain, is provided for. Likewise a special form of bill of lading is used for the movement of government shipments.

### § 5. Billing of the Shipment.

The accounting system of the railroad begins with the keeping track of all shipments received for transportation by means of waybills. A waybill represents the recording of the shipment for movement with the necessary instructions for its subsequent physical carriage and delivery.

Waybills are made with several copies attached, the original being forwarded either with the shipment or by mail, a card waybill being given to the conductor in the

latter case. One copy of the waybill is sent to the auditor of freight receipts, one copy filed in the office of the forwarding agent, and copies distributed to commercial agents, general agents and others concerned with the proper handling of the traffic. Waybills are used in different forms on a single railroad system. These various forms are used in billing special commodities, such as perishable articles, live stock, milk, government and company freight. Such special forms of waybills are designed to give the necessary special or extraordinary directions for the proper handling and carriage of some special commodity.

The card waybill, or as it is sometimes called "slip bill," has come into use as a substitute for the regulation waybill where the latter does not accompany the shipment in the car. There are special card waybills for carload shipments as well as for less than carload shipments, also special card waybills for special commodities, such as coal, grain, milk, company freight, etc.

A "mem-bill" is sometimes used in place of a standard waybill, where an agent is unable for lack of time or other reason to prepare a regular waybill. This is frequently the method followed in the case of company freight. Shipments of coal are also handled on bituminous coal card waybills.

Errors sometimes occur in the making out of waybills, and in order to correct such errors when discovered, a correction blank is issued by the forwarding agent and sent to the receiving agent, with copy to the auditor of freight receipts. This correction blank contains reference to the original waybill showing changes which should be made therein. If the error in the waybill is not discovered until it reaches destination, the receiving agent uses a

similar correction blank to advise the necessary correction to both the forwarding agent and the auditor.

Waybills are of two general classes, i. e., **local waybills** which govern shipments received, carried and delivered on the company's line, and **interline waybills**, which govern shipments received and delivered to their connecting lines. Interline waybills are more elaborate in form than local waybills, containing in addition to the usual specifications of the waybill a series number directing the junction points at which the shipment is to be delivered to a foreign line. Spaces are provided for agents at junction points to stamp dates of receipt and forwarding and for the stamp of the destination agent, as well as the signature of the last conductor in charge of the shipment. Through interline way-billing is rapidly becoming effective throughout the country, although in the past, much of the through freight was actually handled on local billing and rebilled at junction points.

Interline waybills are made with several copies attached, one copy being sent to each of the railroads concerned in the movement of the shipment, to each freight association of which the railroad may be a member, the auditor of freight receipts, the receiving agent, the commercial agent, general agents and others concerned in the proper handling of the shipment.

## § 6. Loading of Shipments.

In the freight houses of railroads at large terminals where time is the essence of all things, freight is frequently stowed in the cars as fast as it is checked in from the wagons and drays and passed across the weighing platform.

The stowing and loading of freight in cars has been one of the most vexatious problems with which the modern

railroad has had to deal. In the past, such freight was handled by trucks, operated by an army of employees. Modern mechanical devices are rapidly displacing this tedious and costly method of handling freight through freight houses in the form of motor and trailer trucks, operated in train formation and capable of carrying several tons of freight at one time. Traveling platforms, incline elevators and moving stairways with truck attachments are also in use for the purpose of facilitating the rapid handling of the tremendous quantities of merchandise freight which daily pass through the large railroad freight houses.

As soon as the cars on track at the freight house and loading platforms have been completely loaded, generally at the close of day, they are sealed by the seal clerk, and a record thereof taken. The seals used are a light metal strip, which is clamped together through the hasps on the car doors and frame, each bearing a number from which the seal record is made. As soon as the car is sealed, it is carded and is ready for the switching crew to move it to the yards to be distributed in train formation and started on its journey to its destination.

### § 7. Transferring Shipments En Route.

Many regulations and restrictions are laid upon the use of railroad freight cars in the general system of interchange of equipment now in vogue on American railways. It is not always possible for the freight loaded into the car at point of origin to be carried through to its ultimate point of destination in the same car. The stoppage of the car in the course of transportation and transferring of its contents to another car may be due to such restrictions in the movement of the original car or to defects in or accident to the car encountered en route. Railroads are there-

fore constantly under the necessity of transferring freight from one car to another, and for this purpose, many of the systems maintain extensive transfer facilities, sometimes consisting of an entire yard maintained in close proximity to its terminal devoted to that purpose. Proper records are kept of such transfers, which involve considerable risk to the carrier, due to the possibility of theft, breakage, leakage and other damage in the transferring operations.

These transfer stations also serve to increase the loading of cars containing less than carload quantities, by combining in one car part carloads for the same destination received from many outlying receiving stations. The through carloads are then handled in the same fast freight trains as carload freight, thus expediting the movement of these less than carload shipments.

### § 8. Shipments Subject to Transit Privileges.

Many of the commodities which enter into transportation by railroad are of such a nature, or the exigencies of their commercial operation are such, as to require treatment of some kind during the period of transportation and prior to their arrival at their ultimate destination. Thus, grain is gathered at the local elevator, where it has to be sorted, graded, cleaned and stored prior to its forwarding to primary markets or milling points. Lumber must be milled, graded, cured, dried and stored during the period of its transportation. Iron and steel may require fabrication before reaching the point where they enter into the construction of the bridge or building. Many other commodities of a special character require other forms of treatment, and were these privileges to be denied such commodities in the course of their transportation, their movement and use in commerce would be

seriously curtailed, and not infrequently, their commercial flow stopped.

We will assume, therefore, in order to illustrate the railroad's method of handling a shipment accorded a transit privilege that a carload of grain is moved from point A, a local point in the grain producing region, to Omaha, Nebr., to be there milled and then shipped to Chicago, Ill. This car would be billed out of point A to Omaha, at the local rate. The waybill would show all of the data and information contained in the ordinary waybill, but if a special grain bill of lading was used, it would carry regulations governing the milling in transit privileges to be accorded the shipment at Omaha. Upon reaching Omaha, and being delivered to the mill, the handling of the car would resemble in every detail, the handling of an ordinary car of merchandise until it actually reached the mill. The car would then be weighed, inspected and certified as to its transportation character. The grain would be placed in the storage elevators or transit house, of the mill and daily report furnished by the receiver of the transit privilege, stating the required information as to the contents of the transit house and the transportation character of all grain therein. Railroads maintain policing authority over the grain, with which must be recorded within a reasonable time after the arrival of the grain, all paid expense bills for freight charges. Within a fixed period, say six months or a year, the grain has been milled into flour and consigned to Chicago. The car, now containing a certain quantity of flour instead of grain, must be again billed by the railroad with proper reference shown upon the new outbound billing from the transit point to the inbound billing from the local point of origin to the transit or milling point. It is, of course, obvious, that 40,000 pounds of wheat will not make 40,000

pounds of flour, and since the car began its movement as a shipment of 40,000 pounds of wheat, some allowance must be made for the shrinkage entailed in its milling. This shrinkage may amount to one per cent in chaff, and twenty-nine per cent in grinding, so that only seventy per cent of the inbound weight of the grain actually passed out as flour. But the receiver of the transit privilege is not permitted to ship out 40,000 pounds of flour when only 40,000 pounds of grain was shipped in. He must have the necessary amount of inbound tonnage to take out 40,000 pounds of flour as outbound tonnage at the ratio of shrinkage obtaining at the milling point. Thus, if he had 80,000 pounds of wheat in and shipped out 40,000 pounds of flour on transit, he should cancel the amount of inbound tonnage, that 40,000 pounds is equivalent to seventy per cent of 57,143 pounds, and this is the information which the daily report of the receiver of the transit privilege must show. All of this billing and recording of the shipment in its passage from the transit point is designed to prevent substitution of tonnage in transit against which the prohibition of the law is directed.

While the detail of transit differs with the various articles which are accorded the privilege, the principle followed is the same and the policing methods require similar records and inspection as are required in connection with the transit of grain.

Shipments having started upon their physical transportation journey may be diverted and reconsigned before reaching their ultimate destination. Upon receipt of diversion or reconsignment instructions from the owner of the shipment, the receiving agent of the railroad notifies by telegraph the nearest agent to the then location of the car in the course of its transit and follows up such reconsignment orders with a "reconsignment ticket," which,

when received by the diverting agent and after he has taken a record of it, is forwarded to the freight auditor. The standard reconsigning ticket is made in combined form and under the multiplex system is written up at one time in the form of a "reconsigning ticket," "return for reconsigning ticket" and "record of reconsigning ticket." The record of reconsigning ticket is written by the agent and is forwarded to the freight auditor after being properly filled out. Proper waybill correction blanks must also follow the diverted or reconsigned shipment in order properly to rebill the shipment in accordance with its actual movement and the rates applicable thereto.

Shipments moving in refrigerator cars require re-icing at certain points en route. Records must be made at these points of the quantity of ice placed in the bunkers and report thereof transmitted to the proper official. Live stock must be watered and fed while in transit, and removed from the car after a certain period of confinement therein. Proper records of watering, feeding and removals of such stock from cars must be made to the local agent, and in turn transmitted to the freight auditor.

### § 9. Arrival of Shipments at Destination.

Upon arrival of shipments, either carload or less than carload, at the point of billed destination, due notice of such arrival must be given to the consignee. Theoretically, this notice should be in writing, but it is customary at many points simply to call the consignee on the 'phone and notify him of the arrival of his shipment. This method, of course, is resorted to only in the case of large and well known shippers, who have necessary facilities for handling their shipments upon receipt of such telephonic notice. Carload shipments are either placed for unloading on public team tracks or on private or industrial

side tracks or spurs, the notice of their arrival being given as of the first seven A. M., after the arrival of the car at the railroad's terminal.

Less than carload shipments are handled through the freight houses of the railroads. When a car is set at the freight house, a seal clerk takes a record of its seals; noting their condition as to being broken, or otherwise tampered with. The car is then opened and the caller and checker enter the car with the truckers. What is known as a "blind tally list" is used, and the caller as he tips the freight on to the trucks of the trucker calls the designation and description of the shipment, and the checker enters the same on his tally list and directs the trucker to place the freight in a certain section of the freight house. This procedure is followed until the car is completely unloaded.

The billing (waybills) may accompany the car or may be received in the mail. In every case, upon its receipt at destination, the billing is sent to the inbound receiving desk or department, where the rate is rechecked by the inbound rate clerk and a pro number placed on the waybill for each consignment it purports to cover. The billing is then turned over to the expensing clerks, who make out the expense bills, each showing pro number, initials and car number, date unloaded, names of the consignor and consignee, original point of origin, date of waybill, waybill number and ex car number, in the event of transfer en route, the number of packages, special marks, etc., weight, rate, charges, including advance charges separately shown, and total charges. In the event any part of the freight charges have been prepaid, proper credit therefor is shown on the expense bill.

This expense bill constitutes both a receipt and record, i. e., a receipt given to the consignee for the charges paid

and a record of the freight which the railroad company has delivered to the consignee. It is the present custom to make these two instruments out at one writing; however, there is no reason why a separate receipt and record should not be made out except that it is a more economical practice to use the forms together.

The expense bill is an itemized statement of the charges paid by the consignee, and in the past, the various forms used by the railroads have been the occasion of much dissatisfaction among shippers. The form of expense bill has recently been changed under supervision of the Interstate Commerce Commission, and the new form requires every special charge incidental to the transportation of the shipment to be given separately in such detail that the consignee may have before him all the data that is necessary for him to understand fully the nature of the service for which he is paying and that the charges he is called upon to pay are correct.

The record of the receipt by the consignee of the property in the shipment, which is retained by the railroad company, constitutes a complete history of each transaction of transportation. Such receipts are filed in book form, numbered and bound so that it is impossible to write upon or remove a receipt from the record book without leaving trace of such action.

In the event the freight arrives at destination in bad order or some of the property lost or damaged, such fact is noted on the face of the receipt, which the consignee signs at the time he receives his expense bill.

After the expense bill is made out by the expensing clerk, it is checked with the blind tally to the end that the number of packages, marks, etc., of the shipment shall correspond with the billed description. This done, the location by section number of the place in the freight

house where the freight was put when unloaded from the car is endorsed on the expense bill. The expense bill is then turned over to the cashier for collection of the charges.

### § 10. Abstracting Waybills.

The abstracting of waybills, the first step in the accounting system whereby the returns of traffic for the purposes of audit and record in the general books of the company is recorded, is divided into the abstracting of waybills forwarded and the abstracting of waybills received and constitutes at once a cross check as to each shipment of the operations of both the forwarding and receiving offices of the railroad.

(1) **Abstracting of Local Waybills Forwarded and Received.** The abstract of waybills, made up separately for local and interline waybills, is simply an abridged statement of waybills made and forwarded by a particular office. The date of each bill, numbered in numerical and chronological order, description of articles, weight, origin and destination are contained in the abstract which is made from the impressions or copies of waybills taken at the time of their original filling out. The totals on the abstracts are so grouped as to show the totals for particular stations, which totals are in turn footed into the gross totals.

Some railroads require daily abstracting of waybills, but the general rule is to require monthly abstracting. These abstracts are made in duplicate, one copy being sent to the freight auditor, and the other copy retained by the forwarding agent.

The same method is pursued in the making of abstracts of waybills received, and the same summary of data shown, the only essential difference being that the abstract is

made of waybills received and forwarded, and is taken from original waybills, instead of from copies. Copy of the abstract of waybills received is furnished to the freight auditor and a copy retained by the receiving agent.

(2) **Abstracting of Interline Waybills Forwarded and Received.** The only difference in the abstract of interline waybills compared with the abstracting of local waybills lies in the fact that the abstracting of interline waybills forwarded and received must be made separately as to each of the different roads to which waybills have been forwarded to or received from, and that this abstract must also conform to the general method of settlement for interline business agreed upon by the interested railroads. This basis of agreement whereby settlement of interline accounts is adjusted on the abstract of billing is a matter of private agreement between the interested lines, and may be modified or changed at any time. But whatever basis of settlement of interline accounts is determined upon, the abstract of interline waybills forwarded is essential to the balancing of the agent's account, for it determines the greater portion of his debits and credits.

An abstract of interline waybills received is made in the same form as the abstract of interline waybills forwarded, and likewise serves the purpose of checking up the interline business between the railroads in interest in the settlement of their interline accounts.

Another form of abstract of interline waybills is that known as the "junction returns of interline waybills." This form of abstract affords further information in aid of settling interline accounts in the fact that it shows the routes taken by the freight and also assists in the tracing of freight.

Proper forms for these different abstracts of waybills

are furnished by the railroads with instructions as to their use, and the furnishing and filing of copies thereof.

### § 11. Rules Governing the Transportation of Government Freight.

All of the rules and regulations governing the receipt and shipment of freight by private parties will also apply on shipments of freight for the government, i. e., all packages should be properly prepared for shipment, complete and explicit shipping directions should be given, the goods should be properly marked, etc.

Inasmuch as the charges on freight transported for the government can not be collected without a government bill of lading, in duplicate, properly made out and certified to by the government officer under whose authority the shipment is made, and, as the government will not issue bills of lading after the freight has been transported, freight of this nature should not be accepted for shipment unless it is accompanied by a government bill of lading in duplicate.

When freight is offered to the carrier for movement, unaccompanied by government bills of lading, and without marks of any description to indicate that it belongs to any department of the government, agents should make diligent inquiry with the object of ascertaining the facts in regard to the shipment at the earliest possible moment. They should not, however, allow the shipment to move until they have determined definitely whether it is government freight or not.

When government freight is received for transportation it should be carefully checked with the bill of lading to see that the items are properly described, that the correct number of packages is received, that the weights and the rates (when the latter are inserted) are correctly

given. The weight should be shown both in numerals and in words; viz., if the shipment weighs 1,400 pounds it should be shown on the bill of lading as follows: "Fourteen hundred (1,400) pounds." When any charges are to be included for switching, or other service, provision for their payment should be made upon the bill of lading. The original and duplicate bills of lading should also be compared to see that they agree and that they are correct and complete in every particular, excepting the receipt of the consignee. This should be done in every instance before the bills of lading are signed and receipted for by the agent.

When government freight is received for transportation in carload lots, the bills of lading should show by whom the freight is loaded. When the process of loading is performed by the government, the bill of lading should bear the notation, "Loaded by the government, railroad company not responsible for quantity."

Should any portion of a government shipment be found in bad order, or any of the packages in any manner insecure, the facts should be noted on the original bill of lading, and the notation signed by the agent.

Agents should not insert rates in government bills of lading.

When government bills of lading are found to be incorrect in any detail they should be corrected by the issuing officer or some other designated officer of the government, or a new bill of lading should be required. Should any alterations, erasures or interlineations be made by an authorized officer of the government, the changes should be certified to by the officer making them before the bill of lading is signed by the agent.

As soon as the freight has been properly waybilled, the original bills of lading should immediately be sent, by ex-

press, to the agent at the station to which the shipment is destined. The duplicate bills of lading should be returned to the government officer who issued them.

All government freight should be waybilled in accordance with the information contained in the bills of lading, and regular tariff rates should be charged, unless special rates are authorized by the proper officer. The number and date of the bills of lading, also the name of the place where issued, and by whom, should be entered on the waybill underneath the description of articles, the number and date of the waybill, also the name of the originating station should be entered on the bill of lading before sending it forward.

Unless instructions to the contrary are received by the agent, bills of lading covering shipments consigned to stations on connecting lines of railway, will not be accepted by agents. Separate bills of lading must be issued for each road over which government freight is transported.

Unless special instructions are received from the freight auditor, agents should not advance any charges on government freight unless bills of lading are received with the freight, providing for the payment to the company of the charges advanced, as well as the charges for transportation over the company's road.

Great care should be used in handling and transmitting government bills of lading, inasmuch as their loss would involve endless trouble and delay in collecting the transportation charges from the government. Losses resulting from carelessness on the part of agents or other employees handling or transmitting these documents will, of course, be charged to the party at fault.

The charges for transportation of government freight covered by government bills of lading are not payable

through the hands of agents, therefore, agents are authorized to deliver all such government freight without collecting the charges thereon.

Government freight should be delivered promptly as in other cases, and the usual receipts taken therefor. Before the freight is delivered, however, the personal receipt of the consignee should be obtained on the bill of lading in the spaces provided for that purpose; the name of the station at which the freight is delivered should also be written in after the word "received" on the back thereof. In the event any extra service has been performed for which a charge is permissible, not provided for in the bill of lading, the important facts in connection therewith should be noted on the bill of lading and certified to by the proper government officer in charge. Without this certificate such charges can not be collected from the government nor will an agent be reimbursed.

When government freight arrives at destination and the bills of lading covering it are not at hand, immediate investigation should be started and inquiry made of the agent at point of origin. The freight auditor should also be advised of the facts immediately by telegraph, and all the information necessary to enable him to locate the missing bills of lading should be given, so far as possible.

No credit will be allowed an agent for charges on government freight unless he can produce the bills of lading properly complied with and its conditions complete and accurate in every respect.

All completed government bills of lading received by agents covering freight waybilled during any month should be held by them until the eighth of the succeeding month, upon which date they should be sent to the freight auditor by express, accompanied by the unreceipted freight bills, with a request for a relief voucher for the

amount of the uncollected charges. This request should be made in accordance with the "Form of request for voucher." In this manner all of the bills for the month will be embraced in one request.

A letter press copy of the request for voucher should be taken by the agent in a book kept for that purpose at the station. In the event the amounts credited by the freight auditor do not agree with the amounts as claimed, the matter should, of course, be investigated immediately by the agent and the difference adjusted.

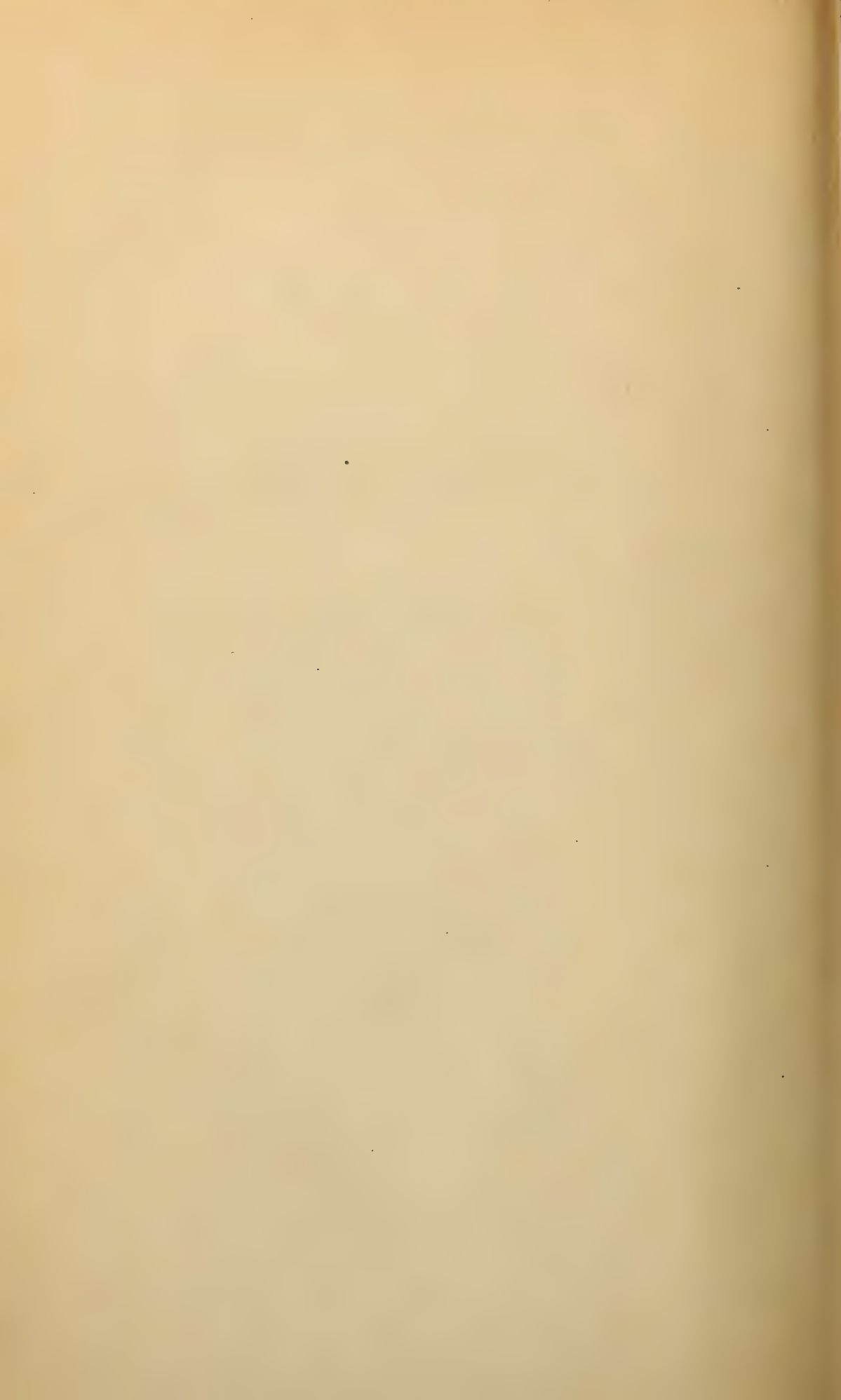
Waybills for government freight should be entered on the station records and accounted for in the same manner as the waybills for other freight. When the account for the current month is rendered, the amount of charges on government freight, for which the freight auditor has been asked for relief, should be noted on the credit side under the caption: "For government freight awaiting relief voucher, as per request upon the freight auditor under date of ....."



## CHAPTER XI.

### PRO-RATING OF FREIGHT REVENUES.

- § 1. Divisions of Freight Revenue.
- § 2. Disposition of Fractions.
  - (1) Formula for Disposing of Fractions.
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- § 7. Illinois Freight Association Method of Divisions.
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## CHAPTER XI.

### PRO-RATING OF FREIGHT REVENUES.

#### § 1. Divisions of Freight Revenue.

No vital interest of the public centers in the divisions of railroad freight revenues as between carriers. It is true, of course, that where failure on the part of carriers to establish divisions of a joint rate results in the denial to the public of through routes and reasonable joint rates the Interstate Commerce Commission is empowered to act in the premises and prescribe proper divisions of a particular joint rate among the carriers in interest. Also, certain proceedings determinative of the reasonableness of a rate, or its undue discriminatory effect sometimes involve the issue of proper divisions of rates among carriers. In their larger import, however, divisions of rates are solely a matter of accounting between railroads in the proper distribution of revenues jointly earned by them. Division sheets, unlike the tariffs of railroads, are not generally distributed to the public. Shippers of grain, coal, etc., however, frequently find that a knowledge of the divisions of rates is important to them in making their purchases because of the extent to which divisions of rates enter into the application of rates where transit and reconsignment privileges are afforded.

Therefore, this chapter will be of the most general interest to those employees of the railroads who are charged with the responsibility of pro-rating railroad

revenues. Such employees include rate clerks, inter-line clerks, division clerks, and others concerned with the accounting of revenues earned where the transportation service is handled under through billing arrangements between two or more carriers. These employees must be so trained that in making settlements with their connections they will be able properly to divide the revenues on the bases of the agreed divisions and in cases where no through billing arrangements are in effect and shipments are waybilled from junction to junction it becomes necessary for such employees of lines parties to the movement to divide the rate so that their line will receive its proper proportion.

Where through rates are published it is necessary that a basis of divisions be agreed upon by the carriers parties to the movement in order that the revenue may be properly distributed between the carriers for the part each takes in the joint service of carriage performed. Divisions of joint rates are a matter of agreement between the carriers and in those cases where through rates are published involving some line or lines that have not agreed as to their proportionate share of the through rate, it is necessary to pro-rate the revenue derived under the through rate on the basis of a mileage pro-rate. This means that the settlement made is a proportioning of the through rate on the basis of the actual mileage over which each carrier hauled the shipment. This is contra-distinguished from those instances in which the local rate of each carrier is used as a basis for dividing the through rate, this latter process of pro-rating being termed a "rate pro-rate."

Computation of divisions is purely a mathematical operation and requires on the part of the pro-rater accurate familiarity with the division sheets published by freight associations and committees and by individual

carriers. The use of the association or committee division sheets in many instances is only possible in conjunction with the individual lines' division sheets for the reason that committee division sheets do not always provide a basis for sub-divisions with all the lines parties to the through movement, and in such a case it becomes necessary to use also the individual lines' division sheets in subdividing the revenue each side of the various junction points. This state of affairs particularly obtains with respect to the division sheets published by the Transcontinental Freight Bureau, it being necessary in practically every instance to resort finally to the individual lines' division sheets in order to consummate the ultimate prorating of revenues. Those who are charged with the responsibility for properly computing these divisions must so equip themselves that they are able to read a division sheet accurately, thoroughly understand the deduction of arbitraries and other charges, and perform their work with mathematical precision.

## § 2. Disposition of Fractions.

In the computation of freight rate divisions, the rules governing the disposition of fractions occurring in mathematical computations frequently vary, but the ordinary method is to drop all fractions less than .049 of one cent and compute .050 of one cent as  $1/10$  of one cent.

For purposes of illustration, the following comparison of the division rules of the Transcontinental Freight Bureau and the Central Freight Association governing the disposition of fractions is subjoined hereto:

(1) **Formula for Disposing of Fractions.** In computing divisions of through rates the following rule will govern in disposing of fractions:

5

— and under will not be counted.

100

Over	5	to	15	inclusive.....will be counted	1
	100		100		10
Over	15	to	25	inclusive.....will be counted	2
	100		100		10
Over	25	to	35	inclusive.....will be counted	3
	100		100		10
Over	35	to	45	inclusive.....will be counted	4
	100		100		10
Over	45	to, but not including	55	will be counted	5
	100		100		10
	55	to, but not including	65	will be counted	6
	100		100		10
	65	to, but not including	75	will be counted	7
	100		100		10
	75	to, but not including	85	will be counted	8
	100		100		10
	85	to, but not including	95	will be counted	9
	100		100		10
	95	“and” over.....			1c
	100				

In computing rates in cents per 100 pounds, fractions of fifty-hundredths of a mill and over and less than a mill will be considered one-tenth of a cent; fractions of less than fifty-hundredths of a mill will be omitted.

See the following illustrations:

5.049=5.0 Cts.	5.1499=5.1 Cts.
5.050=5.1 Cts.	5.1500=5.2 Cts.
5.149=5.1 Cts.	5.725=5.7 Cts.
5.150=5.2 Cts.	5.775=5.8 Cts.

### § 3. Transcontinental Freight Bureau Method of Divisions.

The Transcontinental Freight Bureau, the membership of which comprises the prominent western railway systems engaged in transcontinental traffic, publishes division sheets providing a method for dividing railroad revenues based on the rates as established in the transcontinental tariffs issued and filed by the Bureau.

Division Circular, No. 41 series, provides a method for dividing rates between Pacific Coast termini, intermediate Pacific Coast points and eastern common points and is applied in connection with transcontinental tariffs No. 1 and No. 3 series.

Division Circular No. 42 series provides a method of dividing revenue derived from traffic moving between North Pacific Coast termini, California termini (when routed via North Pacific Coast termini) and eastern common points and is applied in connection with transcontinental westbound tariff No. 4 series, and eastbound tariff No. 2 series.

Transcontinental Circular No. 37 series, provides a basis for dividing revenue between southeastern points and north and south Pacific Coast termini and intermediate territory.

Division Circulars No. 44 and No. 45 series provide a method of dividing revenue for use in connection with the lumber tariffs published and filed by the Transcontinental Freight Bureau.

In addition to these division sheets just mentioned, the Transcontinental Freight Bureau issues other division sheets and arbitrary circulars which are applied in connection with transcontinental tariffs.

The following examples of revenue pro-rates between transcontinental lines illustrate the methods of making divisions in effect under the transcontinental tariffs:

A shipment, consisting of 40,000 pounds of arsenate of lead, in bags, originated at Boston, Mass., and moved on a through rate of 85 cents per cwt. charges \$340.00, destined to San Francisco, Calif., routed via Chicago and the Missouri River.

The lines moving the shipment up to Chicago would receive  $27\frac{1}{2}$  per cent, or \$93.50; the line from Chicago to the Missouri River would receive 15 per cent, less 5 cents per hundred pounds of balance, or \$33.98, and the lines west of the Missouri River would be entitled to 85 per cent of the balance, west of Chicago, plus the 5 cents per hundred pounds, or \$212.52. The lines handling the shipment east of Chicago would divide the proportion east of that point on the basis of agreed divisions. Dividing the rate instead of the revenue, the line to Chicago would receive  $27\frac{1}{2}$  per cent of 85, or 23.4, the line from Chicago to the Missouri River would be entitled to 15 per cent less 5 cents per hundred pounds of balance, or 8.5. The lines west of the Missouri River would receive 85 per cent of the proportion west of Chicago, plus 5 cents per hundred pounds or  $53\frac{1}{10}$  cents per hundred pounds; total 85 cents. The divisions used in this example are provided for in Transcontinental Division Circular 42 series.

A shipment of bottle caps originated at New York, N. Y., destined to Portland, Ore., and was routed via the Erie to Chicago, Ill., via the Chicago Great Western R. R. from Chicago to Minnesota Transfer, and from Minnesota Transfer to destination via the Northern Pacific Railway. The charges of \$375.00 on this shipment, the weight of which was 30,000 pounds, and the rate \$1.25 per hundred pounds would properly be divided as follows:

The Erie Railroad, who moved the shipment from New York to Chicago, would be credited with 25 per cent, or \$93.75; the Chicago Great Western Railroad, 15 per cent, less 5 cents per hundred pounds of balance, or \$39.94, and the Northern Pacific Railway would receive the balance plus 5 cents per hundred pounds, or \$241.31. Dividing the rate instead of the revenue, the division would be: Line to Chicago, 25 per cent of 125, or 31.3; line from Chicago to Minnesota Transfer 15 per cent less 5 cents per hundred pounds, or 13.3, and the line from Minnesota Transfer to destination, 85 per cent of proportion west of Chicago less and plus 5 cents per hundred pounds, or 80.4, total \$1.25. The divisions used in this example are provided for in Transcontinental Freight Bureau Division Circular 41 series.

A shipment, consisting of 6 boxes of clothing, weighing 900 pounds, and which was covered by a through rate of \$2.00 per hundred pounds, total of \$18.00, originated at Detroit, Mich., destined to Oakland, Calif., the revenue of which divided as follows:

The line to Chicago would receive 12 per cent or \$4.32, the road handling the shipment from Chicago to the Missouri River 15 per cent of the balance, less 5 cents per hundred pounds or \$1.98, and the lines west of the Missouri River would be entitled to 85 per cent of the revenue west of Chicago less and plus 5 cents per hundred pounds,

or \$11.70. Dividing the rate instead of the revenue, the line to Chicago would receive 12 per cent or 24 cents per hundred pounds, the line from Chicago to the Missouri River would earn 15 per cent less 5 cents per hundred pounds, or 25.7, and the lines from the Missouri River to destination 85 per cent of proportion west of Chicago, less and plus 5 cents per hundred pounds, or 240.3; total of \$2.00. The authority for this example is Transcontinental Division Circular 41 series.

A shipment consisting of 80,000 pounds of bar iron originated at Pittsburgh, Pa., destined to Seattle, Wash., and carried at rate of 75 cents per hundred pounds total charges \$600.00. In the division, the line up to Chicago would be entitled to 15 per cent, or \$90.00, the line handling the shipment from Chicago to Minnesota Transfer would receive 15 per cent of the balance, less 5 cents per hundred pounds, or \$70.50, and the line hauling the shipment from Minnesota Transfer to destination 85 per cent of the proportion west of Chicago, less and plus 5 cents per hundred pounds, or \$439.50. Dividing the rate instead of the revenue, the line to Chicago would receive 15 per cent of 75 cents, or 11.3, the line from Chicago to Minnesota Transfer, 15 per cent, less 5 cents per hundred pounds of balance, or 8.8, and the line from Minnesota Transfer to destination, 85 per cent, less 5 and plus 5 cents per hundred pounds of the proportion west of Chicago, or 54.9, total 75. These divisions may be found in Transcontinental Circular 42 series.

A shipment consisting of 36,000 pounds of baking powder was made from Chicago, Ill., destined to San Francisco, Cal., routed via New Orleans, La., against which a through rate of \$1.00 was applied, making the total charges \$360.00.

The method of dividing the revenue on this shipment

would be to first deduct 10 cents per hundred pounds, which deduction is distributed as follows: 2 cents at Cairo Bridge, 3 cents arbitrary at New Orleans, La., and 5 cents at Pacific Coast Terminal. The Illinois Central Railroad as the road handling the shipment from Chicago to New Orleans would receive  $24\frac{3}{10}$  per cent, plus 2 cents Cairo Bridge, or 23.9; the line handling the shipment from New Orleans to El Paso, Texas, would be entitled to 32.2 per cent, plus 3 cents per hundred pounds, or 32 cents, and the line carrying the baking powder from El Paso, Texas, to destination would receive  $43\frac{1}{2}$  per cent, plus 5 cents per hundred pounds, or 44.1; total \$1.00. After deducting the revenue instead of the rate, the Illinois Central Railroad would get 24.3 per cent of \$324.00, plus 2 cents per hundred pounds Cairo Bridge, \$78.73, plus \$7.20, or \$85.93. The lines from New Orleans to El Paso, Texas, would receive 32.2 per cent of \$324.00, plus 3 cents per hundred pounds, or \$104.33, plus 3 cents per hundred pounds, \$10.80, or a total of \$115.13. The line carrying the shipment from El Paso, Texas, to destination would receive  $43\frac{1}{2}$  per cent of \$324.00, or \$140.94, plus 5 cents per hundred pounds, \$18.00; total \$158.94.

A shipment of 5,000 pounds of cash registers was made from Chicago to Tacoma, Wash., moving via Minnesota Transfer, against which a through rate of \$3.50 per hundred pounds applied; total \$175.00.

This would be divided to Minnesota Transfer at 15 per cent, less 5 cents per hundred pounds, or \$25.88. The line from Minnesota transfer to destination would be entitled to 85 per cent, less 5 cents plus 5 cents, or \$149.12; total \$175.00. Dividing the rate instead of the revenue, the line handling the shipment from Chicago to Minnesota Transfer would receive 15 per cent, less 5 cents per hundred pounds, or 51.8 per hundred pounds. The line from Min-

nesota transfer to destination would get 85 per cent, less 5 cents per hundred pounds, plus 5 cents per hundred pounds, or 298.2, or a total of \$3.50 through.

#### § 4. Trans-Missouri Freight Bureau Method of Divisions.

The method of divisions contained in the division sheets issued by the Trans-Missouri Freight Bureau, are illustrated in the following examples:

A shipment weighing 1,800 pounds, carrying a rate of \$1.62, total \$29.16 charges, originated at St. Louis, Mo., destined to Pueblo, Colo., routed via Kansas City.

The line handling the shipment from St. Louis to Kansas City would receive  $29\frac{1}{2}$  per cent, or \$8.60, and the line from Kansas City to Pueblo would be entitled to 70 per cent of \$29.16, or \$20.56, total \$29.16. Dividing the rate instead of the revenue, the line from St. Louis to Kansas City would receive  $29\frac{1}{2}$  per cent of \$1.62, or 47.8, and the line from Kansas City to Pueblo should receive  $70\frac{1}{2}$  per cent of \$1.62, or 114.2, total \$1.62. These divisions are contained in Trans-Missouri Freight Bureau, Sheet 1 series.

A shipment weighing 10,000 pounds, against which a rate of \$1.80, applied, total charges \$180.00, originated at Chicago, Ill., destined to Denver, Colo.

This shipment, when routed via the Missouri River, would be divided as follows: East of the Missouri River,  $35\frac{1}{2}$  per cent of \$180.00, or \$63.90; west of the Missouri River the carrier would be entitled to  $64\frac{1}{2}$  per cent of \$180.00, or \$116.10, thus making a total of \$180.00. Dividing the rate instead of the revenue, the line carrying the shipment from Chicago to the Missouri River would receive  $35\frac{1}{2}$  per cent of \$1.80, or 63.9, and the line handling the shipment from the Missouri River west would get  $64\frac{1}{2}$  per cent of \$1.80, or 116.1.

On a shipment weighing 5,000 pounds, rate \$2.65, charges \$132.50, moving from Chicago, Ill., to Salt Lake City, Utah, routed via the Chicago Great Western Railroad to Kansas City, Mo., C. B. & Q. Railway from Kansas City to Denver, Colo., and via the Denver & Rio Grande Railroad from Denver to destination, the revenue would be pro-rated as follows:

Line handling the shipment from Chicago to Kansas City, 21 per cent, or \$27.83; Kansas City to Salt Lake City, 79 per cent, or \$104.67. The proportion west of Kansas City would be subdivided  $37\frac{1}{2}$  per cent of \$104.67, or \$39.25, to the C. B. & Q. Railway, and  $62\frac{1}{2}$  per cent of \$104.67, or \$65.42, to the D. & R. G. Railroad, making a total of \$132.50. In dividing the rate instead of the revenue, the result would be: Line to Kansas City, 21 per cent of 265., or 55.7. West of Kansas City, 79 per cent of 265., or 209.3. Kansas City to Denver,  $37\frac{1}{2}$  per cent of 209.3, or 78.5, Denver to Salt Lake City,  $62\frac{1}{2}$  per cent of 209.3, or 130.8, total \$2.65. These divisions are provided for in Trans-Missouri Division Sheet series.

### § 5. Western Trunk Line Committee Method of Divisions.

The Western Trunk Line Committee issues a number of division sheets applying on traffic, in which a number of lines are interested, as illustrated in the following examples:

Western Trunk Line Division Sheet 315 series, provides a method for dividing revenue on shipments originating at Chicago and points taking same rates or arbitraries higher, the Mississippi River Crossings and shipments destined to points west of the Missouri River in Kansas, Nebraska, Colorado, Wyoming, and Oklahoma.

Western Trunk Line Division Sheet No. 44 series applying on traffic originating at points in Central Freight

Association territory (east of the Indiana-Illinois state line) and destined to points to which Winona, St. Paul, and Duluth, Minn., rates apply. This division sheet also applies on shipments moving in the opposite direction.

Western Trunk Line No. 360 series applying on traffic originating at Milwaukee, St. Paul, and Duluth, and the common points, destined to Joliet, Streator, Peoria, Springfield, East St. Louis, Ill., and points taking similar rates, and also on traffic moving in the opposite direction.

Western Trunk Line No. 509 series, applying on proportional traffic moving through Cairo, Ill., and destined to Winona, St. Paul, Duluth, and the common points in Minnesota.

Western Trunk Line Division Sheet No. 516 series contains methods of division applying on traffic originating at St. Louis, Chicago, and other points and destined to points in Montana and moving under Transcontinental Tariff No. 14 series.

The following examples are illustrative of the division of revenue as provided for in Western Trunk Line Division Sheet 315.

A shipment billed from Chicago, Ill., to Sumner, Okla., weighed 6,400 pounds, with a rate of \$1.50, total charges \$96.00, and was routed via the Missouri River.

The revenue on this shipment would divide to the line hauling the shipment to the Missouri River,  $42\frac{1}{2}$  per cent of \$96.00, or \$40.80, to the line handling the shipment from the Missouri River west,  $57\frac{1}{2}$  per cent of \$96.00, or \$55.20. Dividing the rate instead of the revenue, the line to the Missouri River would be entitled to  $42\frac{1}{2}$  per cent of \$1.50, or 63.8 per hundred pounds, and the line west of the Missouri River should get  $57\frac{1}{2}$  per cent of \$1.50, or 86.2 cents per hundred pounds.

A shipment weighing 5,000 pounds, carrying a rate of

80 cents, total charges \$40.00, originated at Chicago, Ill., destined to Bonner Springs, Kansas, routed via the Missouri River. The line handling the shipment to the Missouri River would receive 81 per cent, or \$32.40, as its share of the revenue, and the line west of the Missouri River should receive 19 per cent, or \$7.60, as its share of the revenue. In dividing the rate instead of the revenue, the line to the Missouri River should get 81 per cent of 80 cents, or 64.8 per hundred pounds, and the line west of the Missouri River 19 per cent of 80 cents per hundred pounds, or 15.2 per hundred pounds.

#### **§ 6. Southwestern Tariff Committee Method of Divisions.**

The Southwestern Tariff Committee issues division sheets and arbitrary tariffs applying in connection with the tariffs issued by it, viz:

Southwestern Lines Division Sheet No. 19 series provides a basis for dividing revenue on shipments originating in defined territory and destined to Texas points, as for example:

A shipment weighing 10,000 pounds, against which a rate of \$1.87 applies, charges \$187.00, originating in Duluth, Minn. (a point in Fox River Territory), and destined to Dallas, Tex., was routed via Chicago, Ill., East St. Louis, Ill., and New Orleans, La.

This rate would divide by conceding the lines out of Chicago the difference between the Milwaukee rate of \$1.67 and the Fox River rate of \$1.87, or 20 cents, plus the Milwaukee to Chicago revenue. The line hauling the shipment from Milwaukee to New Orleans would be entitled to 55 per cent of \$1.67 less 2 cents per hundred which should be deducted for Cairo Bridge, or 55 per cent of \$1.65, or 90.8 plus 2 cents to New Orleans. The line north of Chicago would receive 10 per cent of 90.9, or 9.1

plus the 20 cents arbitrary, or 29.1 from Duluth to Chicago. The line from Chicago to East St. Louis would receive 33 per cent of 81.7, or 27 cents per hundred, and the line from East St. Louis to New Orleans 67 per cent of 81.7, or 54.7, the line west of New Orleans being apportioned 45 per cent of 165 or 74.2, total \$1.67.

#### **§ 7. Illinois Freight Committee Method of Divisions.**

The Illinois Freight Committee in tariff No. 506 series provides proportional rates between Chicago, Ill., Milwaukee, Wis., Peoria, Ill., and stations taking same rates, and Cairo, East Hannibal, East St. Louis, Gale, and Thebes, Ill., on traffic destined to or originating at points in Arkansas and Missouri to and from which no through rates are provided. These proportional rates are the factors of revenue distribution in the rates to the committee lines.

#### **§ 8. Central Freight Association Method of Divisions.**

The Central Freight Association publishes divisions applying on certain traffic and in accordance with the requirements of membership lines, i. e., Central Freight Association Division Sheet No. 39 series, provides a basis for divisions of through rates on commodities originating in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, destined to points in New England Freight Association and Trunk Line Territories.

#### **§ 9. Joint Rate Committee Method of Divisions.**

The Joint Rate Committee publishes a circular No. 20, which provides the method for dividing revenue from shipments originating east of the Indiana-Illinois state line in Central Freight Association Territory and destined to points in Trans-Mississippi River Territory. This cir-

cular, in addition, provides a method for dividing the revenue from shipments originating in Trans-Mississippi River Territory and destined to points in Central Freight Association territory east of the Indiana-Illinois state line.

Circular No. 144, issued by the Joint Rate Committee, provides a method for divisions on west bound traffic originating in Trunk Line and New England territories and Western Termini points and destined to points in Trans-Mississippi River territory, and also provides a method for divisions on traffic originating at the western termini of trunk lines and east thereof destined to percentage points taking 110 per cent or higher of the Chicago-New York rate.

Joint Rate Committee Circular No. 145 provides a method for dividing revenue on shipments originating in Trans-Mississippi River territory and destined to the western termini of trunk lines, Trunk Line and New England territory. This circular provides for dividing the proportional rates applying from the east bank of the Mississippi River crossings to the various eastern destinations, and also contains divisions applicable to traffic originating at points taking 110 per cent or higher of the Chicago-New York rate.

The Joint Rate Committee also issues Circular No. 108 which provides a method for dividing the revenue on certain stipulated traffic.

### § 10. Joint Divisions.

Joint divisions are such as are agreed to by all lines party to a joint rate and are usually made with some relation to the mileage of each interested carrier, thus:

A shipment moving from Dobbin, West, Va., to Thebes, Ill., weighing 10,000 pounds, charges \$73.50, was routed Western Maryland Railroad, Pittsburgh & Lake Erie

Railroad, Erie Railroad, Chicago & Alton Railroad, and St. Louis Southwestern Railway. The proper division would be to allow the St. Louis Southwestern Railway an arbitrary of  $12\frac{1}{2}$  per cent of \$9.19. This amount would be deducted from the through Chicago and the balance, or \$64.31 pro-rated as follows: Western Maryland, 23.9 per cent of \$64.31, or \$15.37, Pittsburgh and Lake Erie Railroad 12.2 per cent of \$64.31, or \$7.85, Erie Railroad 40.9 per cent of \$64.31, or \$26.30, and the Chicago & Alton Railroad, 23 per cent of \$64.31, or \$14.79, making the total of \$73.50.

The table shown below illustrates the proper divisions on a shipment weighing 7,000 pounds, rate 58.1, charges \$40.67, moving from Monmouth, Ill., to Phalanx, Ohio, routed via the Minneapolis & St. Louis Railway, Chicago & Alton Railroad, New York Central Lines, Wheeling & Lake Erie Railroad, and Lake Erie, Alliance & Wheeling Railway:

M. & St. L. Ry.....	25%	of \$40.67, or \$10.17
C. & A. R. R.....	15%	of 40.67, or 6.10
N. Y. C. Lines.....	23%	of 40.67, or 9.36
W. & L. E. R. R.....	17%	or 40.67, or 6.91
L. E. A. & W. Ry.....	20%	of 40.67, or 8.13
		<hr/> \$40.67

A shipment originating at St. Paul, Minn., and destined to New Orleans, La., weight 8,000 pounds, rate \$1.37, charges \$109.60, was routed via the Chicago Great Western Railroad, St. Paul to Chicago, Chicago & Alton Railroad, Chicago to East St. Louis and Mobile & Ohio Railroad, East St. Louis to destination, and would divide as follows: A deduction would first be made of 2 cents

per hundred, Cairo bridge toll, leaving \$108.00 to prorate. The lines carrying the shipment from St. Paul to East St. Louis would receive 48 per cent of \$108.00, or \$51.84. This would subdivide Chicago Great Western Railroad proportion 60 per cent of \$51.84, or \$31.10. The C. & A. R. R. 40 per cent of \$51.84, or \$20.76, total \$109.60. Dividing the rate instead of the revenue, the result would be as follows: Deduct 2 cents Cairo bridge toll. This would leave \$1.35, or 64.8, C. G. W. Railroad 60 per cent of 64.8, or 38.9, C. & A. Railroad 40 per cent of 64.8, or 25.9. This would leave 52 per cent of 135 plus 2 cents per hundred Cairo bridge toll, or 72.2, total 1.37.

A shipment moving from Jacksonville, Ill., to New York City, weight 7,000 pounds, rate 92.2, charges \$64.54, routed via C. P. & St. L. Railroad to Peoria, Ill., C. B. & Q. Railway to Chicago, N. Y. C. & St. L. Railroad from Chicago to Buffalo and D. L. W. Railroad from Buffalo to destination, would properly be divided as follows:

A deduction of 3 cents per hundred for lighterage at New York should be made, or \$2.10, leaving \$62.44 to divide. The C. P. & St. L. Railway would receive 21 per cent or \$13.11 to Peoria and from Peoria to destination rebilling per cents or proportional per cents would be used, so that it would also be necessary to deduct the proportion up to Peoria in addition to the 3 cents deducted for lighterage, deducting 13.11 from \$62.44, leaving \$49.33 as the revenue due the lines east of Peoria. The C. B. & Q. Railway would receive 14.3 per cent of \$49.33, or \$7.05. The N. Y. C. & St. L. Railroad 46.4 per cent of \$49.33, or \$22.89 and the D. L. & W. Railroad would receive 39.3 per cent of \$49.33, plus the lighterage charge of \$2.10, or \$21.49, total \$64.54. Dividing the rate instead of the revenue, the result would be: Rate 92.2, and after deducting 3 cents per hundred for lighterage, 89.2 remains to be pro-

rated. The C. P. & St. L. Railway 21 per cent, or 18.7, deducting the C. P. & St. L. Railway proportion up to Peoria this would leave  $70\frac{1}{2}$  cents to pro-rate east of Peoria. The C. B. & Q. Railroad would receive 14.3 per cent of  $70\frac{1}{2}$  cents, or 10.1. The N. Y. C. & St. L. Railway would receive 46.4 of  $70\frac{1}{2}$  cents, or 32.7. The D. L. & W. Railroad would get 39.3 per cent of  $70\frac{1}{2}$  plus the 3 cents lighterage, or 30.7, total 92.2.

A shipment moved from Mason City, Ill., to Woburn, Mass., weighing 4,000 pounds, carrying a rate of 93.7 per hundred, charges \$37.48, routed via Chicago & Alton Railroad to Chicago, Chicago & Grand Trunk Railroad to Port Huron, Grand Trunk to Buffalo, West Shore Railroad and Boston & Maine Railroad to destination, would be divided: Chicago & Alton Railroad 21 per cent, Chicago & Grand Trunk Railroad, 24.46 per cent, Grand Trunk Railway, 14.31 per cent, West Shore Railroad 21.17 per cent, Boston & Maine Railroad, 19.06 per cent, plus 1 cent per hundred deducted before pro-rating or dividing, or: Boston & Maine Railroad Arb. 1 cent, 40 cents, balance to pro-rate \$37.08, Chicago & Alton Railroad 21 per cent, or \$7.79, Chicago & Grand Trunk Railroad, 24.46 per cent of \$37.08, or \$9.07, Grand Trunk Railway 14.31 per cent of \$37.08, or \$5.30, West Shore Railroad 21.17 per cent of \$37.08, or \$7.85, Boston & Maine Railroad, 19.06 per cent of \$37.08 plus 40 cents Arb., or \$7.07 plus 40, or \$7.47, making the total of \$37.48. Dividing the rate instead of the revenue, the result would be: Rate 93.7, Boston & Maine Railroad, Arb. 1 cent deducted before pro-rating, leaving 92.7 to divide. The Chicago & Alton Railroad would receive 21 per cent, or 19.5, Chicago & Grand Trunk Railroad 24.46 per cent of 92.7, or 22.7, Grand Trunk Railway, 14.31 of 92.7, or 13.3, West Shore Railroad 21.17 per cent of 92.7, or 19.6, and the Boston & Maine Railroad

19.06 per cent of 92.7 plus 1 cent deducted before pro-rating, or 18.6, total 93.7.

A shipment moving from Dawson, Md., to Lincoln, Ill., weight 30,000 pounds, charges \$124.00, routed Western Maryland Railroad, Pittsburg & Lake Erie Railway, New York Central Lines, Lake Erie & Western Railroad, via Bloomington, Ill., and the Chicago & Alton Railroad would divide, Western Maryland Railroad, 18.2 per cent, or \$22.57, Pittsburgh & Lake Erie Railway, 11.6 per cent, or \$14.39, New York Central 16.1 per cent, or \$19.96, Lake Erie & Western Railroad 34.1 per cent, or \$42.28, and the Chicago & Alton Railroad 20 per cent, or \$24.80, total \$124.00.

### § 11. Mileage Divisions.

The division of revenue from traffic moving on joint rates over the lines or two or more carriers is often made on the basis of the actual mileage of each interested line, under an arrangement made between their respective traffic departments. Under this system of pro-rating revenue the total mileage is added and the amount of revenue involved is multiplied by the actual haul of each line and the result divided by the total mileage haul as follows:

A shipment weighing 47,000 pounds, carrying a rate of 55 cents per hundred, moved over six lines of railroad in transit. The first line carried the shipment 168 miles, the second line hauled the shipment 145 miles, the third carrier received a haul of 226 miles, the fourth line hauled the shipment 340 miles, the fifth 450 miles and the sixth line 180 miles, or a total haul of 1,509 miles. We are assuming that all lines were parties to the through rate and agreed to settle the charges on the basis of a mileage pro-rate, there being no divisions in effect; the first line would receive  $168/1509$  of the total charges of \$258.50, or

\$28.78, the second line would earn  $145/1509$  of \$258.50, or \$24.84, the third line  $226/1509$  or \$258.50, or \$38.72, the fourth line  $340/1509$  of \$258.50, or \$58.24, the fifth line  $450/1509$ , or \$77.09, and the sixth line  $180/1509$  of the revenue of \$30.83, total \$258.50. Dividing the rate instead of the revenue, the first line would receive  $168/1509$  of 55 cents, or 6.1, the second line  $145/1509$ , or 5.3, the third  $226/1509$ , or 8.2, the fourth line  $340/1509$ , or 12.4, the fifth line  $450/1509$ , or 16.4, and the sixth line  $180/1509$ , or 6.6, total 55 cents.

A shipment, weighing 56,000 pounds, rate 30 cents per hundred, moved over three lines, incurring a total charge of \$168.00. No agreed divisions were in effect, although all the lines were parties to the through rate. The respective traffic departments agreed to settle the charges on the basis of a mileage pro-rate. The first line hauled the shipment 160 miles, the second 285 miles, and the third line 350 miles, or a total distance of 795 miles. Under this settlement, the first line would receive  $160/795$  of the revenue, or \$33.81, which is arrived at by multiplying the revenue by the miles hauled by the first line and dividing by the total miles hauled. The second line would be given  $285/795$  of \$168.00, or \$60.23, and the third line would get  $350/795$  of \$168.00, or \$73.96. Dividing the rate instead of the revenue the first line would get  $160/795$  of 30 cents per hundred, or 6 cents per hundred, the second line would receive  $285/795$  of 30 cents, or 10.8, and the third line would receive 13.2, a total of 30 cents.

## § 12. Revenue Pro-Rate.

A revenue pro-rate is ordinarily used in the settlement of loss or damage claims, each line paying its proportion of the loss or damage, based on the amount of revenue that it receives. The amount to be paid by each line is

arrived at by adding the total revenue and the amount to be divided is multiplied by the revenue received by each line and the result divided by the total amount of revenue, for example: Assuming the loss or damage payable by claim to be \$8.57, on a shipment moving over two lines of railroad, the first line receiving \$18.70 for its service and the second line \$27.50 for its service, pro-rating the loss on a basis of revenue received, the total charges being \$46.20, the first line would pay  $\$18.70/46.20$  of the loss of \$8.57, or \$3.41. The second line would pay  $\$27.50/46.20$  of the loss or damage, or \$5.10, total \$8.57.

### § 13. Rate Pro-Rate.

Under this method of dividing revenue, assuming that a shipment moves over three lines, the local rates of each line are added together and the amount of revenue to be divided is multiplied by the rate of each line and divided by the sum total of the interested lines, for example:

A shipment of lumber moving over three lines, weight 44,000 pounds, through rate 25 cents with no agreed divisions. The traffic departments agreed to settle the revenue on a rate pro-rate basis. The first line's local rate is 8 cents per hundred, the second line's rate is 12 cents per hundred and the third line has a rate of 9 cents per hundred, the total of the local rates being 29 cents. The first line receives  $8/29$ ths of the 25 cent rate, or 6.9, the second line  $12/29$ ths of the 25 cent rate or 10.3 and the third line  $9/29$ ths of the 25 cent rate, or 7.8, total 25 cents through. Dividing the \$110.00, this first line would be given  $8/29$ ths of \$110.00, or \$30.34, the second line  $12/29$ ths of \$110.00, or \$45.41, and the third line  $9/29$ ths of \$110.00, or \$34.15, total \$110.00.

A shipment of lumber, weighing 34,000 pounds, with a rate of 18 cents per hundred, moving between two points

on a through rate with no agreed divisions, the traffic departments of the interested lines have agreed to settle the revenue on the basis of a rate pro-rate, using the local lumber rate of each line as factors. The rate of the first line is 12 cents, the second line's rate is 10 cents. This would give the first line  $12/22$  of 18 cents, or 9.8, and the second line  $10/22$  of 18 cents, or 8.2, or dividing the revenue would give the first line  $12/22$  of 61.20, or \$33.39, and the second line  $10/22$  of 61.20, or \$27.81.

## **CHAPTER XII.**

### **RECORD AND AUDITING FORMS.**

- § 1. The Function of the Auditing Forms.**
- § 2. Auditing System Forms.**



## CHAPTER XII.

### RECORD AND AUDITING FORMS.

#### § 1. The Function of the Auditing Forms.

How often have we heard it said by the outsider that the departmental "red tape" of railroad accounting systems is a detriment to prompt despatch in the conduct of the railroad business; and, unless we fully comprehend the magnitude of the task performed by the auditing department in accurately recording and auditing the tremendous mass of transportation transactions, not only at one point but at hundreds of points, we are liable to be misled by such criticisms. As we search through the maze of railway auditing systems we find but few which may be justly said to be cumbersome or duplicatory in their effect on the work done under them. Charged, as it is, with the great responsibility of promptly and accurately recording and auditing an almost endless chain of transportation transactions, the auditing department has resorted to the establishment only of those systems and forms absolutely necessary to give the correct status to each transaction, record accurately the transportation revenues and exercise a systematic control of fiscal activities of the railroad. The function of each auditing form and operation is singular in its effect, that is, its purpose is to record a single transaction as an act done at a particular time and annex a truthful record of the results of such act. The general books of account of the railroad must be based upon this

marshalling of cause and effect into a system of concrete results of fact and relations.

## § 2. Auditing System Forms.

To attempt to describe faithfully or to set out in full the numerous forms employed for the purposes of recording and auditing railway transportation transactions is beyond the purposes of this volume. It would be well, however, that we should have a comprehensive reference list of such forms in use on the various railway systems of the country and the following table thereof is therefore appended:

Receipt for Freight.	Monthly Return of Unre-
Shipping Bill for Freight.	funded Charges.
Notice of No Business to	Agent's Notice of Errors
Report.	and Omissions of Local
Conductor's Return for	Waybills.
Freight Loaded at Sta-	Agent's Notice of Errors
tions Where There Are	and Omissions in Inter-
No Agents.	line Waybills.
Conductor's Waybilling Di-	Freight Expense Bill.
rections for Freight	Record of Freight Received
Loaded at Stations	and Agent's Balance
Where There Are No	Thereof.
Agents.	Duplicate Freight Bill.
Conductor's Record of	Reconsigning Ticket.
Freight Loaded at Sta-	Return for Reconsigning
tions Where There Are	Ticket.
No Agents.	Freight Auditor's Notice of
Record of Bulk Freight	Errors and Omissions in
Weighed at Destination.	Local Waybills.
Record of Freight Trans-	Freight Auditor's Notice of
ferred.	Errors and Omissions in
	Interline Waybills.

- Statement of Freight Weighed En Route.  
Record of Freight Weighed En Route.  
Receipt for Miscellaneous Charges.  
Record of Miscellaneous Charges Collected.  
Return of Miscellaneous Freight Collections Not Waybilled.  
Receipt for Dockage or Terminal Charges.  
Record of Freight Received Subject to Terminal Charge Only.  
Receipt for Cash Collected.  
Record of Cash Collected.  
Return of Ferry Collections.  
Statement of Ferry Collections.  
Record of Ferry Collections.  
Order for Switching.  
Receipt for Switching Charges.  
Record of Switching.  
Switching Waybill.  
Return for Switching Charges Collectible.  
Statement of Switching Charges Collectible.  
Record of Switching Charges Collectible.  
Return for Switching Charges Due Other Companies.  
Statement of Switching Charges Due Other Companies.  
Record of Switching Charges Due Other Companies.  
Record of and Receipt for Interline Charges Prepaid.  
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## **CHAPTER XIII.**

### **RAILWAY CLAIMS SYSTEMS.**

- § 1. Adjustment of Claims.**
- § 2. Rules Governing the Adjustment of Claims for Overcharges.**
- § 3. Rules Governing the Adjustment of Interline Overcharge Claims.**
- § 4. Rules Governing the Adjustment of Interline Loss and Damage Claims.**
- § 5. Relief Claims.**
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## CHAPTER XIII.

### RAILWAY CLAIMS SYSTEMS.

#### § 1. Adjustment of Claims.

One of the most vexatious phases of the transportation business is the adjustment of claims made against carriers occasioned by overcharges and loss, damage, and delay to shipments. Whatever has been the practice of railroads in the past, it is the announced purpose of every railroad at the present time promptly to settle legitimate claims. It is not possible, however, nor lawful, for railroads to settle claims without first determining that such claims are meritorious ones. Diligent investigation and inquiry must be made in every case before payment of claims may be lawfully made. The mere filing of a claim against a railroad means nothing and cannot be accepted as a justification for payment of the claim. The law holds the carrier responsible not only to pay the claim but to determine that such claim is one the law permits it to pay.

It is, therefore, necessary that the railroad should install a system for the proper handling and adjusting of claims, and to that end each railroad of any importance has constituted a claim department for that purpose. Upon many roads the adjustment of freight claims is divided among different officers. Overcharge claims are frequently intrusted to the freight auditor and claims for loss and damage to the freight claim agent and ultimately to the law department. Most railroads authorize the local freight

agent to settle minor claims for overcharge, but very few local freight agents are empowered to make adjustments of loss and damage claims. On small railroads this is sometimes permitted where the local freight agent has ample evidence of the liability of the railroad. Where the local freight agent makes such adjustment of claims he is required to take proper receipts and releases from the claimant as a part of the adjustment. He is, also, required to make a record of the transaction and report the same either to the auditor or the freight claim agent. Some systems have in effect a rule that all overcharges that may be adjusted by the local freight agent must be refunded by the end of the month, following the month in which they occur, otherwise the adjustment must take place by voucher drawn up by the freight claim agent.

It is difficult indeed to lay down any hard and fast rules governing the adjustment of minor claims against railroads for the reason that officers such as general agents, division freight agents, etc., sometimes reach adjustments of claims with their patrons and such settlements are accepted by the auditing and freight claim departments.

## **§ 2. Rules Governing the Adjustment of Claims for Overcharges.**

The following rules and regulations in general outline the methods through which claims against railroads for overcharges pass to adjustment.

It is the policy of railroads in general to adjust promptly all claims for overcharges and errors of a like nature. It should be the duty of agents, therefore, to exercise unusual diligence in putting such claims through for settlement. In event that agents are not permitted by the rules governing such matters to make refund of the overcollections they shall render the claimants all possible assistance in

properly presenting the claim to the freight auditor for settlement.

Generally the agent is notified at the time the freight is delivered and charges paid, that a claim will be presented, and usually the basis of such claim will be stated. Agents should then carefully investigate the conditions governing the proposed claim and, if possible, adjust the difference at that time. When the basis of the claim is wrong rates, such claim should be supported by receipts for the freight or bills of lading naming rates not similar to the rates used in waybilling the shipment, or with the tariffs used by the agent, the proper officer should be furnished with the facts in the case and decision as to rates to be applied, be made by him. In event that the claim is based on weight, the manner of obtaining such weight should be carefully investigated. The shipment should be carefully inspected, and if possible, reweighed, the weight being tested by weighing a part of it, when possible, the test weight being recorded on the station record. If, however, the shipment cannot be reweighed and the actual weight cannot be determined in any other way, approximately correct weights may be obtained from an inspection of the original invoice, or the tables for computing weights as furnished by the freight auditor, may be used.

In presenting claims, a bill should be made against the carrier by the claimant, in which the amount of overcharge claimed is shown, and this bill should also state the basis upon which the claim is being filed, to which should be attached the original paid freight bills or other receipts showing charges paid, also the receipts for freight or bills of lading issued by the consignor of the shipment. If, however, it is impossible to furnish these documents, the reason therefor should be given. If the overcharge claimed is on account of weight or count, the original in-

voice should be attached to the claim accompanied by any evidence that the claimant may be able to furnish. If the claimant declines to surrender the original invoice an accurate copy of it should be made which should be certified. In the event that the agent does not consider the evidence submitted sufficient, affidavit of the claimant or other person familiar with the facts should also be attached.

Agents have not the authority to receive and transmit claims of this nature to the freight auditor. They should only assist in properly presenting the claim and request claimant to transmit them direct.

In the event that claims are referred to agents for additional information, or investigation, they should be given preferred attention by the agent and promptly returned to the freight auditor by express after the necessary information has been shown, together with a letter of transmittal.

### **§ 3. Rules Governing the Adjustment of Interline Overcharge Claims.**

The adjustment of interline overcharge claims is covered by the following rules.

Claims of this nature should be authenticated by the carrier through whom filed, by the original bill of lading or shipping receipt, and paid freight bill, or, in case of their absence, the fact should be explained satisfactorily and when possible a statement showing the amount of overcharge due from each carrier in interest.

Claims for error in weight when settled should be based on the actual weight, subject to the minimum or estimated weight (when such applies) as provided for in the classification or tariff. The claim may be settled and charged back to the carriers in interest by the delivering carrier, without reference of papers for authority therefor,

provided that papers be accompanied by a certificate of weight.

Should the claim for overcharge be based on erroneous classification in billing and claim is supported by the bill of lading and published classification with invoice or certificate of delivering carrier's agent, settlement may be made by the delivering carrier, and the claim charged back without previous reference of papers.

The receiving agent should not allow erroneous or unauthorized rates on interstate traffic but should refer the claimants to the carriers whose agent issued the bill of lading or who made the unauthorized contract. The proper officers of the carrier who made such erroneous or unauthorized rates or contract should be promptly notified.

If a terminal carrier (in the absence of a tariff) protects a rate supported by a bill of lading, and upon investigation it is found the rate was made in error, the claim should be charged back to the carrier making the error.

Overcharges caused through the errors of agents or other employees in routing or waybilling, will be paid by the carrier employing such agent or employee, except that when contributory negligence on the part of other carriers can be shown claims shall be charged to the carriers at fault based on the revenue. A carrier receiving revenue on two hauls on such shipment, shall refund the revenue one way.

When a shipment from another carrier is discovered to have been improperly billed or sent to the wrong destination, and request for its return is made, and the shipment is returned to point of origin, or to another point, the original billing shall stand, or, should none exist, freight shall be charged for the carriage at the tariff rate and same shall be returned without charge. If the proper

destination of the shipment lies beyond that point to which the original billing is made in error, providing the same rate applies, the shipment shall be forwarded without additional charge. In adjusting claims under this rule, in case the shipment should have moved over the lines of a carrier or carriers implicated in the overcharge by reason of contributory negligence, but who refuse to bear their pro rata proportion, same shall be borne by the carrier whose agent originated the error.

Should an undercharge be discovered in the handling of overcharge claims, same shall be credited in the final settlement to the carrier interested.

When an overcharge claim is presented to a delivering carrier by a consignee and such overcharge after being investigated properly is found to be with the initial or intermediate carrier, the initial or intermediate carrier at fault shall make voucher in favor of the claimant, and shall at the same time notify all carriers in interest of the payment so that their records may be closed.

The carrier at fault shall be charged with claims for located overcharges.

All bills made against carriers shall be accompanied by the papers involved in the claim, together with the original receipt of the claimant, and it is generally understood in cases where the delivering agents only collect from consignees the correct amount of freight and charges, that the receipt of such agent or his cashier is to be treated as the original claimant's receipt. The certificate of the auditor or treasurer of a company that such agent has been credited in his accounts shall be accepted instead of receipt where relief claims are so handled.

Bills for proportions of paid freight claims when presented to a carrier shall be passed for payment within sixty (60) days, if found correct.

When the delivering carrier protects a foreign bill of lading, on account of connecting fast freight line or on account of cooperative fast freight lines composed of several railroad companies, one receipt from claimant attached to the claim papers shall enable the delivering line to secure settlement, it not being required to take separate receipts for each of the railroad companies forming part of said co-operative line.

When an authority has been granted, on the strength of which money has been paid which would not otherwise have been expended, it should be honored invariably and no repudiation will be allowed, but when the authorization is simply a clerical error, the error being apparent and with no resultant loss, it should be susceptible of correction.

#### **§ 4. Rules Governing the Adjustment of Interline Loss and Damage Claims.**

The following rules and regulations illustrate in general the methods pursued by railroads in the handling and adjustment of interline loss and damage claims:

The subject of imperfect car seals embody the following examples: Absence of seal properly applied, broken seal, indistinct impression, and blank seal.

An imperfect seal record may be caused by any of the following cases: No record of seal, no record of marks or impressions on seal, no record by agents or conductors (the latter in case the record is taken at stations where there are no agents), it being understood that the secure fastening of end doors on the inside of the car shall be considered as proper end-door security.

Cars opened for repairs, ventilation, icing or inspection, or used in local freight service, shall not be considered as

unsealed providing a perfect continuous seal record is shown from station to station.

In the case of an imperfect seal record or seals being shown on any portion of the line, through any of the causes shown above, any claim for loss shall be charged entirely to the carrier on whose line such imperfect seals or record are shown. If such imperfect seals or seal record occurs on the lines of two or more of the carriers, the loss, including the accrued charges, shall be divided equally between the carriers involved, without reference to mileage or revenue. It is understood that no carrier shall be charged with a loss on account of an imperfect seal record, providing the investigation beyond the point of such imperfect seal record shows the seal to have been intact.

Any claim for loss which investigation fails to locate shall be pro-rated on basis of revenue from the point where the shipment last checked in good order to the point where the loss was discovered.

In the case of a carrier checking and loading freight in good order at a transfer or junction point and the connecting carrier re-checks the shipment and finds a shortage under the delivering carrier's seals, the loss, including accrued charges, shall be divided between the delivering and receiving carriers on the basis of 60 per cent to the former and 40 per cent to the latter.

In the event of entire package being lost from a car, under the seals of the station where the shipment was last checked, the car having passed over the lines of two or more carriers since it was last checked, shall be charged to the loading carrier 30 per cent, unloading carrier 20 per cent and 50 per cent pro-rated on earnings basis from the point where last checked to the point where the loss was discovered.

Upon arrival of liquids at a junction point in a leaky condition, it is the duty of the delivering carrier to ascertain the exact loss and then to re-cooper the packages so that they may be delivered to the receiving carrier in good order, the exact weight to be shown. Any loss occurring thereafter shall be borne by the carrier or carriers beyond the junction point.

Claims for damage, which investigation fails to locate, shall be pro-rated on a mileage basis from the point where the freight was last checked in good order to the point where the damage was discovered. The mileage to be used in pro-rating should be that given in an official guide, the minimum distance to be charged to any one carrier not to be less than ten miles.

Should a carrier check and load freight into a car in good order at a transfer point or junction point and the carrier to whom it is delivered re-checks, finds the freight damaged or pilfered under the delivering carrier's seals, the claim shall be divided between the delivering and receiving carriers, on the basis of 50 per cent each.

A claim for unlocated damage by water shall be pro-rated on a mileage basis, irrespective of evidence of storms on any part of the lines, provided the loading or transferring carrier can show evidence of inspection of the car before leaving initial or transfer station.

A claim for damage to shipment transferred en route shall be pro-rated between points where the last transfer occurred in good order and the point at which damage is discovered.

In the case of claim for damage arising from delay, the carrier upon whose line the delay occurs shall bear the same. Should the delay be located upon the lines of two or more carriers, the claim shall be distributed on a pro-rata basis among such carriers, the share of each being

in proportion to the delay upon its line in relation to the entire delay.

A thorough inspection should be made of all cars before they are submitted for loading, and properly cleaned, if necessary, to avoid possible damage from filth, waste, oil, grease or other substances. Damages resulting through failure to do so shall be charged to the carrier at fault.

Any loss or damage located at a transfer point shall be paid by or charged to the carrier whose employees were in charge of the freight at the time the loss or damage occurred.

When a loss or damage at a transfer point resolves itself into a question of veracity between the employees of the carriers interested in the transfer, the claim shall be equally divided between such carriers.

Loss or damage located on the line of any carrier in whose hands freight is astray shall be charged to such carrier.

Claims arising through errors of agents, such as improper waybilling, forwarding, receipting, failing to note upon bill of lading "Shippers' load and count," "Released," or "Owners' risk," when so accepted, shall be paid by the carrier employing the agent at fault; except when contributory negligence, such as failure to report promptly over or short or to carry out instructions calculated to remedy the error, can be shown upon the part of other carriers. In such cases the claim shall be equally divided between the carriers at fault.

When a shipment is delivered by a carrier to a transfer company or teamster for delivery to another carrier and any loss or damage occurs while the property is in the possession of the transfer company or teamster, the question of collecting the amount of the claim from the trans-

fer company or teamster shall be disposed of by the carrier making the delivery.

Loss or damage located upon the road of a carrier performing switching service for a compensation or otherwise at terminal points, or between connecting roads, shall be paid wholly by the carrier performing such switching service, provided that the placing of the car under perfect seal security in the consignee's yard, or upon the track from which it is to be loaded, shall constitute delivery. In case there is a damage or shortage under perfect seals, failure to check the contents shall not render a switching carrier liable for loss. When the switching carrier is the initial line, it is not required to check the contents, or do more than seal the car and deliver it to connecting carrier in good order and under perfect seal security.

Any claim for unlocated loss or damage of property switched shall be settled under the appropriate rules, switching road being charged on the basis of a constructive mileage of ten miles in case of damage, unless its actual mileage is greater.

Any claim for loss or damage located by investigation shall be paid by or charged to the carrier upon whose line the loss or damage occurred.

At transfer points where a single check is agreed upon, the check of the receiving carrier shall be considered as that of the delivering carrier, or vice versa, each acting as the agent of the other.

In case of damage, checking carrier shall be charged upon the basis of a constructive mileage of ten miles, unless actual mileage is greater.

In checking the contents of through cars bearing initial or foreign seals, at junctions, transfer points or destinations, all overs and shorts shall be specifically reported

within ten days to carrier from which said freight was received; such carrier shall, in turn, report back to the initial carrier through the connections that handled the shipment. Any carrier neglecting to report within ten days is barred from making it after such limit and shall be charged with the amount of the loss, unless it can be shown that it occurred before the shipment reached that line. Over and short reports handled through the freight claim departments of destination lines shall be made to connecting carrier within thirty-two days after handling the shipment at destination, Sundays and legal holidays excepted. At junction points, where one agent acts jointly for two carriers, he must always protect each company alike in his check and notations.

When a loss or damage is found by a carrier under its connections' seals at an intermediate station, a notation of the facts must be made on the billing by the agent so checking, such notation to be prima facie evidence locating the point at which such loss or damage was first discovered, and claims shall be pro-rated accordingly. Overs and shorts so checked shall be reported back to the initial carrier through the connections handling the shipment.

When freight upon which charges should be prepaid, but the amount of which is guaranteed instead of being prepaid, is forwarded over more than one road, the initial or guaranty carrier shall be responsible to its connections for the total amount of the freight and advances in the event of the inability of delivering carrier to collect; request for protection of guaranty to be made within six months.

When freight which reaches destination in apparent good order, and is unclaimed or refused, is sold for charges and expenses and the proceeds of the sale do not cover same, the deficit shall be pro-rated on the basis of earnings by the carriers interested in the carriage of the freight.

Accumulated freight shall be disposed of without reference to other carriers.

All shipments of fruits, vegetables, melons or other perishable freight, refused by consignees on account of having been spoiled or damaged during transportation, upon which the carrier is unable to collect charges shall be sold to the best advantage, account sales attached to papers and claim for relief credited with the net proceeds of said sale. The remainder shall be pro-rated from point of shipment to destination upon revenue basis, unless it can be clearly shown that the loss was the result of neglect of one or more carriers.

When a claim is presented to a carrier for loss or damage, and such loss or damage upon investigation is found to be with another carrier, the papers in the claim shall be sent to the carrier upon whose line such loss or damage occurred, and such carrier shall voucher direct in favor of claimant. In such case all carriers in interest shall be notified of the payment, that they may close their records.

When claims are presented for loss or damage to property which was loaded by shippers or unloaded by receivers, or which was both loaded and unloaded by shippers and receivers without a representative of the carrier being present, and the receiving or delivering line recommends payment, the check of the shipper or receiver shall be treated as if made by the carrier, provided affidavits are made by shippers and receivers of the correctness of their check.

Claims for located loss or damage shall be charged direct, all necessary papers accompanying the bill.

When granting authority to another carrier to charge proportion on the basis of mileage or revenue, the mileage or revenue of the carrier granting such authority shall be invariably shown.

When a pro-ratable claim has been declined upon its merits and the amount recovered from any carrier through process of law, such amount, together with costs and special attorney's fees, shall be pro-rated from point of shipment to destination.

When an amount so recovered cannot be shown to be pro-ratable, the case shall be referred to an arbitration committee, and the carrier or carriers decided by said committee to be at fault shall reimburse the defendant in the suit the full amount of verdict and costs, including special attorney's fees, less such defendant's proportion, if any, of the claim.

It is understood that the term "process of law" means any settlement by the court or attorneys interested after suit has been commenced.

Bills against foreign roads shall be, so far as practicable, attached to claim papers immediately on the top and following the investigation, instead of being fastened on the back of the claim wrappers.

An authority once granted, on the strength of which money has been paid which would not have otherwise been expended, should be honored in all cases, and no repudiation will be allowed; but when the authorization is simply a clerical error, the error being apparent and no loss resulting therefrom, it shall be susceptible of correction.

### **§ 5. Relief Claims.**

When amounts are charged to agents that cannot or should not be collected by them, application for relief should be made at once to the proper official. Promptness on the part of agents in making application for relief of uncollectible amounts, care in preparing claims and the energetic following up of the matter will obviate the neces-

sity of carrying a large number of uncollectible items on their accounts current.

All claims for relief should be accompanied by a letter setting forth all the facts in the case; to this should be attached copies of the way bills or statements of waybilling, unreceipted freight bills, certificates of weight and inspection, original invoices or certified copies thereof, as well as any other information that may be necessary to enable the official to whom they are sent to decide upon the correctness of the same.

The following claims for relief should be made to the freight auditor:

1st. Claims for relief of amounts erroneously charged to agents on account of freight traffic.

2d. Claims for relief of freight charges on material received for construction purposes.

3d. Claims for relief of charges on freight for contractors, graders or other parties with whom the company has a contract for the performance of work.

In the two latter instances a certificate should be made across the face of each unreceipted freight bill to the effect that the agent should receive credit for the amount charged. This certificate should be signed by the officer under whose supervision or direction the work is performed.

All claims for relief of charges on unclaimed, short or damaged freight should be made to the officer in charge of such claims.

When amounts are correctly charged to agents, but are for any reason uncollectible by them, the matter should be referred to the traffic department for adjustment.

Claims for relief of amounts advanced on company's material and supplies should be made to the officer in charge of the purchasing department.

When claims are received at the general office, they are registered and given a number. At the time the receipt of the claim is acknowledged this number is communicated to the agent and should be noted upon his station records. This number should be referred to in all subsequent communications made in regard to the claims, and when amounts are carried on the account current or statement of uncollectible charges for which claim numbers have been received, the numbers, and the title of the officer by whom they are being investigated should be given.

#### **§ 6. Rules of the Freight Claim Agents' Association.**

The importance of the proper adjustment of interline claims for overcharge, loss, damage, and delay to property in the course of transportation has reached such proportions on American railroads as to bring about a concert of action of those charged with the responsibility for such adjustments in an endeavor to perform such settlements amicably and economically. The Freight Claim Agents' Association is an organization whereby the claims representatives of the railroads have established uniform methods and rules of procedure in the distribution of liability among the interested lines. The rules adopted by this association have been outlined in the preceding sections of this chapter.

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